

8. REFERENCES

*ACGIH. 1986. Documentation of the threshold limit values and biological exposure indices. 5th Ed. Cincinnati, OH: American Conference of Government Industrial Hygienists Inc., 109-110.

*Adams EM, Spencer HC, Rowe VK, et al. 1952. Vapor toxicity of carbon tetrachloride determined by experiments on laboratory animals. Arch Ind Hyg Occup Med 6:50-66.

*Agarwal AK, Mehendale HM. 1984a. CCl₄-induced alterations in Ca⁺⁺ homeostasis in chlordecone and phenobarbital pretreated animals. Life Sciences, 34: 141-148.

*Agarwal AK, Mehendale HM. 1984b. Excessive hepatic accumulation of intracellular Ca²⁺ in chlordecone potentiated CCl₄ toxicity. Toxicology 30: 17-24.

*Agarwal AK, Mehendale HM. 1986. Effect of chlordecone on carbon tetrachloride-induced increase in calcium uptake in isolated perfused rat liver. Toxicol Appl Pharmacol 83:342-348.

Agrawal HC, Agrawal D. 1989. Tumor promoters accentuate phosphorylation of PO: evidence for the presence of protein kinase C in purified PNS myelin. Neurochem Res 14:409-413.

Ahmad FF, Cowan DL, Sun AY. 1987. Detection of free radical formation in various tissues after acute carbon tetrachloride administration in gerbil. Life Sci 40:2469-2475.

Ahmadizadeh M, Echt R, Heusner WW, et al. 1990. Effect of carbon tetrachloride on hamster tracheal epithelial cells. J Toxicol Environ Health 30:273-285.

Ala-Kokko L, Stenback F, Ryhanen L. 1987. Preventive effect of malotilate on carbon tetrachloride-induced liver damage and collagen accumulation in the rat. Biochem J 246:503-509.

* Cited in text

8. REFERENCES

- *Ala-Kokko L, Gunzler V, Hoek JB, et al. 1992. Hepatic fibrosis in rats produced by carbon tetrachloride and dimethylnitrosamine: observations suggesting immunoassays of serum for the 7S fragment of type IV collagen are a more sensitive index of liver damage than immunoassays for the NH₂-terminal propeptide of type III procollagen. *Hepatology* 16: 167-172.
- Albano E, Carini R, Parola M, et al. 1989. Effects of carbon tetrachloride on calcium homeostasis. *Biochem Pharmacol* 38 : 2719-2725,
- *Allis JW, Ward TR, Seely JC, et al. 1990. Assessment of hepatic indicators of subchronic carbon tetrachloride injury and recovery in rats. *Fund Appl Toxicol* 15:558-570.
- *Alumot E, Nachtom E, Mandel E, et al. 1976. Tolerance and acceptable daily intake of chlorinated fumigants in the rat diet. *Food Cosmet Toxicol* 14: 105-110.
- *Andervont HB. 1958. Induction of hepatomas in strain C3H mice with 4-O-tolylazo-o-toluidine and carbon tetrachloride. *J Natl Cancer Inst* 20:431-438.
- Andrabi K, Kaul N, Ganguly NK, et al. 1989. Altered calcium homeostasis in carbon tetrachloride exposed rat hepatocytes. *Biochem International* 18: 1287- 1295.
- Aniya Y, Anderq MW. 1985. Alteration of hepatic glutathione S-transferases and release into serum after treatment with bromobenzene, carbon tetrachloride, or N-nitrosodimethylamine. *Biochem Pharmacol* 34:4239-4244.
- *Annoni G, Contu L, Tronci MA, et al. 1992. Pyridoxol,2-pyrrolidon-5 carboxylate prevents active fibroplasia in CCl₄-treated rats. *Pharmacological Research* 25 : 87-93.
- Anttinen H, Oikarinen A, Puistola U, et al. 1985. Prevention by zinc of rat lung collagen accumulation in carbon tetrachloride injury. *Am Rev Respir Dis* 132:536-540.
- Anon. 1992. Carbon tetrachloride toxicity. *American Family Physician* 46: 1199-1207.

8. REFERENCES

- *AOAC. 1984. Fumigant residues. Volatile fumigants in grain. Gas Chromatographic Method. Section 29.071. In: Official Methods of Analysis of The Association of Official Analytical Chemists. 14th ed. Arlington, VA: Association of Official Analytical Chemists Inc., 547-548.
- *APHA. 1985. Halogenated methanes and ethanes by purge and trap - method 514. In: Standard Methods for the Examination of Water and Wastewater. 16th ed. Washington, DC: American Public Health Association, 591-602.
- *APHA. 1992a. Methos 6230A. Volatile Halocarbons. In: Standard methods for the examination of water and wastewater. 18th ed. Washington, DC. American Public Health Association, 46-57.
- *APHA. 1992b. Methos 604OC. Purge and trap technique. In: Standard methods for the examination of water and wastewater. 18th ed. Washington, DC. American Public Health Association, 17-36.
- Aragno M, Danni O, Ugazio G. 1989. In vivo studies on halogen compound interactions. II. Effects of carbon tetrachloride plus 1,2-dibromomethane on relative liver weight and hepatic steatosis. Res Comm Chem Pathol Pharmacol 66: 105-116.
- *Aragno M, Tamagno E, Danni O, et al. 1992. In viva studies on halogen compound interactions. III. Effect of carbon tetrachloride plus 1,2-dichloroethane on liver necrosis and fatty accumulation. Research Communication in Chemical Pathology and Pharmacology 76:341-354.
- Arii S, Monden K, Itai S, et al. 1990. Depressed function of kupffer cells in rats with CCl₄-induced liver cirrhosis. Res Exp Med 190: 173-182.
- Ariosto F, Riggio O, Cantafora A, et al. 1989. Carbon tetrachloride-induced experimental cirrhosis in the rat: A reappraisal of the model. Eur Surg Res 21:280-286.
- *Ashe WF, Sailer S. 1942. Fatal uremia following single exposure to carbon tetrachloride fumes. Ohio State Med J 38:553-555.

8. REFERENCES

*Ashley DL, Bonin MA, Cardinali FL, et al. 1992. Determining volatile organic compounds in human blood from a large sample population by using purge and trap gas chromatography/mass spectrometry. *Anal Chem* 64: 1021-1029.

*ASTM. 1987. Sampling workplace atmospheres to collect organic gases or vapors with activated charcoal diffusional samplers - method D 4597-87. In: 1987 Annual Book of ASTM Standards. Volume 11.03. Atmospheric analysis; occupational health and safety. Philadelphia, PA: American Society for Testing and Materials, 490-494.

*ASTM. 1988. Low molecular weight halogenated hydrocarbons in water - method D 3973-85. 1988 Annual Book of ASTM Standards. Volume 11.02. Water and Environmental Technology. Philadelphia, PA: American Society for Testing Materials, 141-145.

ATSDR. 1988. VIEW database. Atlanta, GA: Agency for Toxic Substances and Disease Registry Office of External Affairs, Exposure and Disease Registry Branch, October 1988.

*ATSDR. 1989. Agency for Toxic Substances and Disease Registry. Federal Register 54:37618-37634.

Axelsson G, Rylander R. 1989. Outcome of pregnancy in women engaged in laboratory work at a petrochemical plant. *Am J Ind Med* 16:539-545.

*Azri S, Mata HP, Gandolfi AJ, Brendel K. 1991. CCl₄-induced cytochrome P-450 loss and lipid peroxidation in rat liver slices. *Biol Reactive Intermediates* 669-674.

*Bai CL, Canfield PJ, Stacey NH. 1992. Individual serum bil acids as early indicators of carbon tetrachloride- and chloroform-induced liver injury. *Toxicology* 75:221-234.

Bakale G, McCreary RD. 1990. Response of the k, test to NCUNTP-screened chemicals. I. Nongenotoxic carcinogens and genotoxic noncarcinogens. *Carcinogenesis* 11:1811-1818

Bandi ZL, Ansari GA. 1989. Isolation of hydroxy fatty acids from livers of carbon tetrachloridetreated rats by thin-layer chromatography. *J Chromatogr* 475:461-466.

8. REFERENCES

*Barber ED, Donish WH, Mueller KR. 1981. A procedure for the quantitative measurement of the mutagenicity of volatile liquids in the Ames Solmonella/microsome assay. *Mut Res* 90:31-48.

Barber LB, Thurman EM, Takahashi Y, et al. 1992. Comparison of purge and trap GC/MS and purgeable organic chloride analysis for monitoring volatile chlorinated hydrocarbons. *Ground Water* 30:836-842.

Barkley J, Bunch J, Bursey JT, et al. 1980. Computer analysis of volatile halogenated hydrocarbons in man and his environment -- a multimedia environmental study. *Biomed Mass Spectrom* 7: 139-147.

*Barnes DG, Dourson M. 1988. Reference dose (RfD): Description and use in health risk assessments. *Regul Toxicol Pharmacol* 8:471-486.

*Barnes R, Jones RC. 1967. Carbon tetrachloride poisoning. *Am Ind Hyg Assoc J* 28:557-560.

Barnes D, Bellin J, DeRosa C, et al. 1987. Reference dose (RfD): description and use in health risk assessments. Volume I, Appendix A: Integrated risk information system supportive documentation. Washington, DC: US Environmental Protection Agency, Office of Health and Environmental Assessment. EPA/600/8-86/032a.

Barrow L, Tanner MS. 1989. The effect of carbon tetrachloride on the copper-laden rat liver. *Br J Exp Pathol* 70:9-19.

Baumann M, Berauer M. 1985. Comparative study on the sensitivity of several serum enzymes in detecting hepatic damage in rats. *Arch Toxicol* 8 (Supplement):370-372.

Becker E, Messner B, Berndt J. 1987. Two mechanisms of CCl₄-induced fatty liver: lipid peroxidation or covalent binding studied in cultured rat hepatocytes. *Free Rad Res Commun* 3:299-308.

*Bell AN, Mehendale HM. 1985. The effect of dietary exposure to a mirex plus chlordane combination on Ccl, hepatotoxicity. *Fund Appl Toxicol* 5:679-687.

8. REFERENCES

*Bell AN, Mehendale HM. 1987. Comparative changes in hepatic DNA, RNA, protein, lipid, and glycogen induced by a subtoxic dose of CCl₄ in chlordecone, mirex, and phenobarbital pretreated rats. *Toxicol Lett* 35:191-200.

*Bellar TA. 1989. Method 502.1. Volatile halogenated organic compounds in water by purge and trap gas chromatography. Cincinnati, OH: U.S. Environmental Protection Agency, Office of Research and Development.

*Belyaev ND, Budker VC, Deriy LV, et al. 1992. Liver plasma membrane-associated fibroblast growth: stimulatory and inhibitory activities during experimental cirrhosis. *Hepatology* 15:525-531.

Bender AP, Parker DL, Johnson RA, et al. 1989. Minnesota highway maintenance worker study: Cancer mortality. *Am J Ind Med* 15:545-556.

*Bengtsson F, Bugge M, Vagianos C, et al. 1987. Brain serotonin metabolism and behavior in rats with carbon tetrachloride-induced liver cirrhosis. *Res Exp Med* 187:429-438.

*Berck B. 1974. Fumigant residues of carbon tetrachloride, ethylene dichloride, and ethylene dibromide in wheat, flour, bran, middlings, and bread. *J Agric Food Chem* 22:977-985.

Berger ML, Sozen T. 1987. Rapid halogenated hydrocarbon toxicity in isolated hepatocytes is mediated by direct solvent effects. *Toxicology* 45:319-330.

*Bergman K. 1983. Application and results of whole-body autoradiography in distribution studies of organic solvents. *CRC Crit Rev Toxicol* 12:59-118.

*Berman E, House DE, Allis JW, et al. 1992. Hepatotoxic interactions of ethanol with allyl alcohol or carbon tetrachloride in rats. *J Toxicol Environ Health* 37: 161-176.

Bernacchi AS, Fernandez G, Villarruel MC, et al. 1988. Further studies on the late preventive effects of the anticalmodulin trifluoperazine on carbon tetrachloride-induced liver necrosis. *Exp Mol Pathol* 48:286-300.

8. REFERENCES

Bertelli A, Giovamrini L, Bertelli AA, et al. 1986. Tissue concentrations of coenzyme Q in liver of rats intoxicated by carbon tetrachloride. *Int J Tissue React* 8:343-346.

*Bhathal PS, Rose NR, Mackay IR, et al. 1983. Strain differences in mice in carbon tetrachloride-induced liver injury. *Br J Exp Pathol* 64:524-533.

*Bhattacharyya K. 1965. Foetal and neonatal responses to hepatotoxic agents. *J Path Bact* 90:151-161.

*Bianchi AP, Varney MS, Phillips J. 1991. Analysis of volatile organic compounds in estuarine sediments using dynamic headspace and gas chromatography-mass spectrometry. *J Chromatogr* 542:413-450.

Biasi F, Albano E, Chiarpotto E, et al. 1991. *In viva* and *in vitro* evidence concerning the role of lipid peroxidation in the mechanism of hepatocyte death due to carbon tetrachloride. *Cell Biochem Func* 9:111-118.

*Bickel M, Baader E, Brocks DG, et al. 1991. Beneficial effects of inhibitors of prolyl 4-hydroxylase in CCl₄-induced fibrosis of the liver in rats. *J Hepatology* 13:S26-S34.

*Biesel KW, Ehrinpreis MN, Bhathal PS, et al. 1984. Genetics of carbon tetrachloride-induced liver injury in mice. II. Multigenic regulation. *Br J Exp Pathol* 65: 125-131.

Blair A, Decoufle P, Grauman D. 1979. Causes of death among laundry and dry cleaning workers. *Am J Public Health* 69:508-511.

*Blair PC, Thompson MB, Wilson RE, et al. 1991. Correlation of changes in serum analytes and hepatic histopathology in rats exposed to carbon tetrachloride. *Toxicol Lett* 55: 149-159.

Bogen KT. 1990. Risk extrapolation for chlorinated methanes as promoters vs initiators of multistage carcinogenesis. *Fund Appl Toxicol* 15:536-557.

8. REFERENCES

- *Bogers M, Appelman LM, Feron VJ, et al. 1987. Effects of the exposure profile on the inhalation toxicity of carbon tetrachloride in male rats. *J Appl Toxicol* 7: 185-191.
- Bond GG, McLaren EA, Sabel FL, et al. 1990. Liver and biliary tract cancer among chemical workers. *Am J Ind Med* 18:19-24.
- Borzelleca JF, O'Hara TM, Gennings C, et al. 1990. Interactions of water contaminants. I. Plasma enzyme activity and response surface methodology following gavage administration of CCl₄ and CHCl₃ or TCE singly and in combination in the rat. *Fund Appl Toxicol* 14:447-490.
- Bosma A, Brouwer A, Seifert WF, et al. 1988. Synergism between ethanol and carbon tetrachloride in the generation of liver fibrosis. *J Pathol* 156: 15-21.
- *Bove FJ, Fulcomer MC, Klotz JB, et al. 1992a. Population-based surveillance and etiological research of adverse reproductive outcomes and toxic wastes. Report on Phase IV-A: Public drinking water contamination and birthweight, fetal deaths, and birth defects. A cross-sectional study. New Jersey Department of Health.
- *Bove FJ, Fulcomer MC, Klotz JB, et al. 1992b. Population-based surveillance and etiologic research of adverse reproductive outcomes and toxic wastes. Report on Phase IV-A: Public drinking water contamination and birthweight, fetal deaths, and birth defects. A case-control study. New Jersey Department of Health.
- *Boyd MR, Statham CN, Longo NS. 1980. The pulmonary Clara cell as a target for toxic chemicals requiring metabolic activation; studies with carbon tetrachloride. *J Pharmacol Exp Ther* 212: 109-114.
- Bozzelli J, Kebbekus BB. 1982. A study of some aromatic and halocarbon vapors in the ambient atmosphere of New Jersey. *J Environ Sci Technol* 9:833-838.
- *Brady JF, Xiao F, Wang M-H, et al. 1991. Effects of disulfiran on hepatic P450IIE1, other microsomal enzymes, and hepatotoxicity in rats. *Toxicol Appl Pharmacol* 108:366-373.

8. REFERENCES

Brandom WF, McGavran L, Bistline RW, et al. 1990. Sister chromatid exchanges and chromosome aberration frequencies in plutonium workers. *Int J Radiat Biol* 58:195-207.

Brattin WJ, Glende EA Jr., Recknagel RD. 1985. Pathological mechanisms in carbon tetrachloride hepatotoxicity. *J Free Radical Biol Med* 1:27-38.

Brent JA, Rumack BH. 1993. Role of free radicals in toxic hepatic injury II. Are free radicals the cause of toxin-induced liver injury? *Clin Toxicol* 31: 173-196.

*Briggs GG. 1973. A simple relationship between soil adsorption of organic chemicals and their octanol/water partition coefficients. *Proceedings of the 7th British Insecticide Fungicide Conference* (1973) 83-86.

Brittebo EB, Brandt I. 1989. Metabolic activation of carbon tetrachloride by the cervico-vaginal epithelium in rodents. *Pharmacol Toxicol* 65 : 336-342.

*Brittebo EB, Eriksson C, Brandt I. 1990. Metabolic activation of halogenated hydrocarbons in the conjunctival epithelium and excretory ducts of the intraorbital lacrimal gland in mice. New York, NY: Academic Press 245-252.

*Brodzinski R, Singh HB. 1983. Volatile organic chemicals in the atmosphere: An assessment of available data. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Research and Development. EPA-600/3-83-027(A).

*Brondeau MT, Coulais C, de Ceaurriz J. 1991. Difference in liver and serum malathion carboxylesterase and glucose-6-phosphatase in detecting carbon tetrachloride-induced liver damage in rats. *J Appl Toxicol* 11:433-435.

*Brown KW, Donnely KC. 1988. An estimation of risk associated with the organic constituents of hazardous and municipal waste landfill leachates. *Hazardous Waste and Hazardous Materials* 5(1): 1-30.

8. REFERENCES

- *Bruckner JV, Kim HJ, Muralidhara S, et al. 1990. Influence of route and pattern exposure on the pharmacokinetics and hepatotoxicity of carbon tetrachloride. In: Gerrity TR and Henry CJ, eds. Principle of route to route extrapolation for risk assessment. Elsevier Science Publishing Co., Inc. 271-284.
- *Bruckner JV, Luthra R, Kyle GM, et al. 1984. Influence of time of exposure to carbon tetrachloride on toxic liver injury. *Ann Rev Chronopharmacol* 1:373-376.
- *Bruckner JV, MaKenzie WF, Muralidhara S, et al. 1986. Oral toxicity of carbon tetrachloride: acute, subacute and subchronic studies in rats. *Fund Appl Toxicol* 6: 16-34.
- Brunke EG, Allen RJ. 1988. Tropospheric background measurements of CFCl_3 , CH_3CCl_3 , and CCl_4 at Cape Point, South Africa, and their long-term trends. *South African J Sci* 84:266-270.
- Burk RF, Reiter R, Lane JM. 1986. Hyperbaric oxygen protection against carbon tetrachloride hepatotoxicity in the rat. Association with altered metabolism. *Gastroenterol* 90: 812-818.
- *Burlhart KK, Hall AH, Gerace R, et al. 1991. Hyperbaric oxygen treatment for carbon tetrachloride poisoning. *Drug Safety* 6: 332-338.
- Butler TC. 1961. Reduction of carbon tetrachloride *in vivo* and reduction of carbon tetrachloride and chloroform *in vitro* by tissues and tissue constituents. *J Pharmacol Exper Therap* 134:311-319.
- *C&EN. 1992. Production by the U.S. Chemical Industry. *Chemical and Engineering News*, June 29, 1992. 36.
- *C&EN. 1993. Production by the U.S. Chemical Industry. *Chemical and Engineering News*, June 28, 1993.
- *Cagen SZ, Klaassen CD. 1979. Hepatotoxicity of carbon tetrachloride in developing rats. *Toxicol Appl Pharmacol* 50:347-354.

8. REFERENCES

- *Cai Z, Mehendale HM. 1990. Lethal effects of CCl₄, and its metabolism by mongolian gerbils pretreated with chlordecone, phenobarbital, or mirex. *Toxicol Appl Pharmacol* 104:511-520.
- *Cai Z, Mehendale HM. 1991a. Hepatotoxicity and lethality of halomethanes in Mongolian gerbils pretreated with chlordecone, phenobarbital or mirex. *Arch Toxicol* 65:204-212.
- *Cai Z, Mehendale HM. 1991b. Prestimulation of hepatocellular regeneration by partial hepatectomy decreases toxicity of carbon tetrachloride in gerbils. *Biochem Pharmacol* 42:633-644.
- *Cai Z, Mehendale HM. 1993. Resiliency to amplification of carbon tetrachloride hepatotoxicity by chlordecone during postnatal development in rats. *Pediatric Research* 33:225-232.
- *Calabrese EJ, Baldwin LA, Mehendale HM. 1993. Contemporary issues in toxicology. G₂ subpopulation in rat liver induced into mitosis by low-level exposure to carbon tetrachloride: An adaptive response. *Toxicol Appl Pharmacol* 121: 1-7.
- *Callen DF, Wolf CR, Philpot RM. 1980. Cytochrome P-450 mediated genetic activity and cytotoxicity of seven halogenated aliphatic hydrocarbons in *Saccharomyces cerevisiae*. *Mutat Res* 77:55-63.
- *Camps J, Bargallo T, Gimenez A, et al. 1992. Relationship between hepatic lipid peroxidation and fibrogenesis in carbon tetrachloride-treated rats: effect of zine administration. *Clinical Science* 83:695-700.
- Capurro PU. 1979. Cancer in a community subject to air pollution by solvent vapors. *Clin Toxicol* 14:285-294.
- Carakostas MC, Gossett KA, Church GE, et al. 1986. Evaluating toxin-induced hepatic injury in rats by laboratory results and discriminant analysis. *Vet Path* 23:264-269.
- Carlson GP. 1989. Effect of ethanol, carbon tetrachloride, and methyl ethyl ketone on butanol oxidase activity in rat lung and liver. *J Toxicol Environ Health* 27:255-261,

8. REFERENCES

Carpenter AV, Flanders WD, Frome EL, et al. 1988. Chemical exposures and central nervous system cancers: A case-control study among workers at two nuclear facilities. *Am J Ind Med* 13:351-362.

*Castillo T, Koop DR, Kamimura S, et al. 1992. Role of cytochrome P-450 2E1 in ethanol-, carbon tetrachloride- and iron-dependent microsomal lipid peroxidation. *Hepatology* 16(4):992-996.

Castro GD, Diaz-Gomez MI, Castro JA. 1990. Biotransformation of carbon tetrachloride and lipid peroxidation promotion by liver nuclear preparations from different animal species. *Cancer Lett* 53:9-15.

Castro GD, Lopez AJ, Petricio AR, et al. 1986. Effect of the pretreatment with pyrazole, cystamine or diphenyl-P-phenylenediamine (DPPD) on the CCl₄-promoted pentane evolution in rats. *Res Commun Chem Pathol Pharmacol* 52: 137-140.

Castro JA, Diaz-Gomez MI. 1972. Studies on the irreversible binding of ¹⁴C-Carbon tetrachloride to microsomal lipids in rats under varying experimental conditions. *Toxicol Appl Pharmacol* 23:541-552.

*CDC/ATSDR. 1990. Biomarkers of organ damage or dysfunction for the renal, hepatobiliary and immune systems. Atlanta, GA: CDUATSDR Subcommittee on Biomarkers of Organ Damage and Dysfunction, Centers for Disease Control, Agency for Toxic Substances and Disease Registry. Summary report, August 27, 1990.

CDHS. 1988. Notice of proposed rulemaking. June 23. Sacramento, CA: California Department of Health Services.

*CEH. 1985. CEH product review. Chlorinated methanes. Chemical Economic Handbook-SRI International, pp 635.2020A to 635.2022B.

Cessi C, Colombini C, Mameli L. 1966. The reaction of liver proteins with a metabolite of carbon tetrachloride. *Biochem J* 101:46c-47c.

8. REFERENCES

Chadwick RW, Copeland MF, Carlson GP, et al. 1988. Comparison of *in vivo* and *in vitro* methods for assessing the effects of carbon tetrachloride on the hepatic drug-metabolizing enzyme system. *Toxicol Lett* 42:309-316.

Chamuleau RA, Creighton JH, De Nie I, et al. 1988. Is the magnetic resonance imaging proton spin-lattice relaxation time a reliable noninvasive parameter of developing liver fibrosis. *Hepatology* 8:217-221.

*Chandler FA. 1936. The use of carbon tetrachloride in the removal of adhesive tape. Report of a near fatal case. *J Am Med Assoc* 107:2121.

*Chandler AC, Chopra RN. 1926. Effects of the administration of sugar, magnesium sulfate, sodium citrate and dilute acid on the liver damage done by carbon tetrachloride. *Ind J Med Res* 14:219-226.

*Chapman K, Prabhudesai M, Erdman JW. 1992. Effects of ethanol and carbon tetrachloride upon vitamin A status of rats. *Alcoholism: Clinical and Experimental Research* 16:764-768.

Charbonneau M, Couture J, Plaa GL. 1991. Inhalation versus oral administration of acetone: effect of the vehicle on the potentiation of CCl₄-induced liver injury. *Toxicol Lett* 57:47-54.

*Charbonneau M, Oleskevich S, Brodeur J, et al. 1986. Acetone potentiation of rat liver injury induced by trichloroethylene-carbon tetrachloride mixtures. *Fundam Appl Toxicol* 6:654-66 1.

*Chatterjee A. 1966. Testicular degeneration in rats by carbon tetrachloride intoxication. *Experientia* 226: 395-396.

Chaudhury S, Mehendale HM. 1991. Amplification of Ccl toxicity by chlordecone: destruction of rat hepatic microsomal cytochrome P-450 subpopulation. *J Toxicol Environ Health* 32:277-294.

Chen, WJ, Chi EY, Smuckler EA. 1977. Carbon tetrachloride-induced changes in mixed function oxidases and microsomal cytochromes in the rat lung. *Lab Invest* 36:388-394.

8. REFERENCES

Chen JD, Wang JD, Jang JP, et al. 1991. Exposure to mixtures of solvents among paint workers and biochemical alterations of liver function. *Br J Ind Med* 48:696-701.

*Chiarpotto E, Biasi F, Comoglio A, et al. 1990. CCl₄-induced increase of hepatocyte free arachidonate level: pathogenesis and contribution to cell death. *Chem Biol Interact* 74: 195-206.

*Cholbi MR, Paya M, Alearaz MJ. 1991. Inhibitory effects of phenolic compounds on CCl₄-induced microsomal lipid peroxidation. *Research Articles* 47: 195-199.

Christenson WR, Davis ME, Berndt WO. 1989. Effect in the rat of the interaction of dichloromaleic acid and carbon tetrachloride on renal and hepatic function, *Fundam Appl Toxicol* 13:493-499.

*Clair P, Tua M, Simian H. 1991, Capillary columns in series for GC analysis of volatile organic pollutants in atmospheric and alveolar air. *Journal of High Resolution Chromatography* 14:383-387.

Clawson GA. 1989. Mechanisms of carbon tetrachloride hepatotoxicity. *Pathol Immunopathol Res* 8: 104-112.

Clawson GA, Blankenship LJ, Rhame JG, et al. 1992. Nuclear enlargement induced by hepatocarcinogens alters ploidy. *Cancer Res* 52: 1304-1308.

Clawson GA, MacDonald JR, Woo CH. 1987. Early hypomethylation of 2'-O-Ribose moieties in hepatocyte cytoplasmic ribosomal RNA underlies the protein synthetic defect produced by CCl₄. *J Cell Biol* 105:705-711.

*Cohen MM. 1957. Central nervous system in carbon tetrachloride intoxication. *Neurology* 7:238-244.

Cohen MA, Ryan PB, Spengler JD. 1991. Source-receptor study of volatile organic compounds and particulate matter in the Kanawha Valley, WV-II. Analysis of factors contributing to VOC and particle exposures. *Atmos Environ* 25B:95-107.

8. REFERENCES

- Cohen MA, Ryan PB, Yanagisawa Y, et al. 1989. Indoor/outdoor measurements of volatile organic compounds in the Kanawha Valley of West Virginia. JAPCA 39: 1086-1093.
- Coleman JB, Condie LW, Lamb RG. 1988. The role of CCl₄ biotransformation in the activation of hepatocyte phospholipase C *in vivo* and *in vitro*. Toxicol Appl Pharmacol 95:208-219.
- Columbano A, Ledda-Columbano GM, Ennas MG, et al. 1990. Cell proliferation and promotion of rat liver carcinogenesis: different effect of hepatic regeneration and mitogen induced hyperplasia on the development of enzyme-altered foci. Carcinogenesis 11: 771-776.
- Columbano A, Rajalakshmi S, Sarma DSR. 1981. Requirement of cell proliferation for the initiation of liver carcinogenesis as assayed by three different procedures. Cancer Res 41:2079-2083.
- Comporti M. 1989. Three models of free radical-induced cell injury. Chem Biol Interact 72:1-56.
- *Conaway HB, Hoven F. 1946. Electrocardiographic changes in carbon tetrachloride poisoning. U.S. Navy Med Bull 46:593-595.
- *Condie LW, Laurie RD, Mills T, et al. 1986. Effect of gavage vehicle on hepatotoxicity of carbon tetrachloride in CD-1 mice: corn oil versus Tween-60 aqueous emulsion. Fundam Appl Toxicol 7: 199-206.
- Connor HD, Lacagnin LB, Knecht KT, et al. 1989. Reaction of glutathione with a free radical metabolite of carbon tetrachloride. Mol Pharmacol 37:443-451.
- *Connor HD, Thurman RG, Galizi MD, et al. 1986. The formation of a novel free radical metabolite from Ccl₄ in the perfused rat liver and *in vivo*. J Biol Chem 261:4542-4548.
- *Cornish HH, Adefuin J. 1966. Ethanol potentiation of halogenated aliphatic solvent toxicity. Am Ind Hyg Assoc J 27:57-61.
- *Cornish HH, Ling BP, Barth mL. 1973. Phenobarbital and organic solvent toxicity. Am Ind Hyg Assoc J 34:487-492.

8. REFERENCES

- Corsi RL, Chang DP, Schroeder ED, et al. 1987. Emissions of volatile and potentially toxic organic compounds from municipal wastewater treatment plants. Presented at the 80th annual meeting of the APCA (Air Pollution Control Association). New York, NY.
- Cotson R, Williams T. 1982. Headspace chromatographic determination of water pollutants. *Anal Chem* 54:942.
- *Cox RA, Derwent RG, Eggleton AEJ. 1976. Photochemical oxidation of halocarbons in the troposphere. *Atmos Environ* 10:305-308.
- *Craddock VM, Henderson AR. 1978. De novo and repair replication of DNA in liver of carcinogen-treated animals. *Cancer Res* 38:2135-2143.
- Criddle CS, McCarty PL. 1991. Electrolytic model system for reductive dehalogenation in aqueous environments. *Environ Sci Technol* 25:973-978.
- Criddle CS, Dewitt JT, Grbic-Galic D, et al. 1990. Transformation of carbon tetrachloride by *pseudomonas* sp. strain KC under denitrification conditions. *Appl Environ Microbial* 56:3240-3246.
- *CRISP. 1993. Computer Retrieval of Information on Scientific Projects. National Institutes of Health, Division of Research Grants. Bethesda, MD: May 15, 1993.
- *Crist HL, Mitchell WJ. 1986. Field audit results with organic gas standards on volatile organic ambient air samplers equipped with Texas GC. *Environmental Science and Technology* 20: 1260-1262.
- *Cruz C, Ibarra-Rubio ME, Pedraza-Chaverri J. 1993. Circulating levels of active, total and inactive renin (prorenin), angiotensin-I and angiotensinogen in carbon tetrachloride-treated rats. *Clin Exp Pharmacol Physiol* 30:83-88.
- Cunnane SC. 1987. Hepatic triacylglycerol accumulation induced by ethanol and carbon tetrachloride: interactions with essential fatty acids and prostaglandins. *Alcoholism Clin Exp Res* 11:25-31.

8. REFERENCES

- *Curtis GP, Reinhard M. 1992. Reductive dehalogenation of hexachlorethane, carbon tetrachloride and bromoform by anthrahydroquinone disulfonate and humic acid. *AbstrPap Am Chem Soc* 203:91
- *Curtis LR, Williams WL, Mehendale HM. 1979. Potentiation of the hepatotoxicity of carbon tetrachloride following preexposure to chlordecone (Kepone) in the male rat. *Toxicol Appl Pharmacol* 5 1:283-293.
- *Daft JL. 1989. Determination of fumigants and related chemicals in fatty and nonfatty foods. *J Agric Food Chem* 37:560-564.
- *Daft JL. 1991. Fumigants and related chemicals in foods: review of residue findings, contamination sources and analytical methods. *Sci Total Environ* 100:501-5 18.
- *Dambrauskas T, Cornish HH. 1970. Effect of pretreatment of rats with carbon tetrachloride on tolerance development. *Toxicol Appl Pharmacol* 17:83-97.
- Danni O, Aragno M, Ugazio G. 1988. In vivo studies on halogen compound interactions. *Res Commun Chem Pathol Pharmacol* 61: 377-390.
- *Dashti HM, Al-Sayer H, Behbehani A, et al. 1992. Liver cirrhosis induced by carbon tetrachloride and the effects of superoxide dismutase and xanthine oxidase inhibitor treatment. *J R Coll Surg Edinb* 37:23-28.
- *David A, Frantik E, Holusa R, et al. 1981. Role of time and concentration on carbon tetrachloride toxicity in rats. *Int Arch Occup Environ Health* 48:49-60.
- *Davis DD, Schmidt JF, Neeley CM, et al. 1975. Effect of wavelength in the gas-phase photolysis of carbon tetrachloride at 253.7, 184.9, 147, and 106.7 nm. *J Phys Chem* 79:11-17.
- *Dawkins MJR. 1963. Carbon tetrachloride poisoning in the liver of the new-born rat. *J Pathol Bact* 85:189-196.

8. REFERENCES

*Day WW, Weiner M. 1991. Short communications: Inhibition of hepatic drug metabolism and carbon tetrachloride toxicity in Fischer-344 rats by exercise. *Biochem Pharmacol* 42: 181-184.

*De Castro CR, Bernacchi AS, De Ferreyra EC, et al. 1978. Carbon tetrachloride induced ultrastructural alterations in pancreatic acinar cells and in the hepatocytes. Similarities and differences. *Toxicology* 11:289-296.

DeGroot H, Noll T. 1989. Halomethane hepatotoxicity: induction of lipid peroxidation and inactivation of cytochrome P-450 in rat liver microsomes under low oxygen partial pressures. *Toxicol Appl Pharmacol* 97:530-537.

DeLorey DC, Cronn DR, Farmer JC. 1988. Tropospheric latitudinal distributions of CF_2Cl_2 , CFCl_3 , N_2O , CH_3CCl_3 , and CCl_4 over the remote Pacific Ocean. *Atmos Environ* 22:1481-1494.

*De Toranzo EG, Diaz Gomez MI, Castro JA. 1978a. Carbon tetrachloride activation, lipid peroxidation and liver necrosis in different strains of mice. *Res Commun Chem Pathol Pharmacol* 19:347-352.

*De Toranzo EG, Villarruel MC, Castro JA. 1978b. Early destruction of cytochrome P-450 in testis of carbon tetrachloride poisoned rats. *Toxicology* 10:39-44.

*Dean BJ, Hodson-Walker G. 1979. An *in vitro* chromosome assay using cultured rat-liver cells. *Mutat Res* 64:329-337.

*Deer HM, McJilton CE, Harein PK. 1987. Respiratory exposure to grain inspection workers to carbon tetrachloride fumigant. *Am Ind Hyg Assoc J* 48:586-593.

DeLeon IR, Overton EB, Raschke CK, et al. 1980. Rapid gas chromatographic method for the determination of volatile and semivolatile organochlorine compounds in soil and chemical waste disposal site samples. *J Chromatogr Sci* 18:85-88.

8. REFERENCES

Deliconstantinos G, Mykoniatis M, Papadimitriou D. 1986. Carbon tetrachloride modulates the rat hepatic microsomal UDP-glucuronyl transferase activity and membrane fluidity. *Experientia* 42:181-183.

*Della Porta GD, Terracini B, Shubik P. 1961. Induction with carbon tetrachloride of liver cell carcinomas in hamsters. *J Natl Cancer Inst* 26:855-863.

Deng JF, Wang JD, Shih TS, et al. 1987. Outbreak of carbon tetrachloride poisoning in a color printing factory related to the use of isopropyl alcohol and air conditioning systems in Taiwan. *Am J Ind Med* 12: 11-19.

*Desaiah D, Pentyla SN, Trotman CH, et al. 1991. Combined effects of carbon tetrachloride and chlordane on calmodulin activity in gerbil brain. *J Toxicol Environ Health* 34:219-228.

*Diaz Gomez MI, Castro JA. 1980a. Covalent binding of carbon tetrachloride metabolites to liver nuclear DNA, proteins and lipids. *Toxicol Appl Pharmacol* 56: 199-206.

*Diaz Gomez MI, Castro JA. 1980b. Nuclear activation of carbon tetrachloride and chloroform. *Res Commun Chem Pathol Pharmacol* 27: 191-193.

*Diaz Gomez MI, De Castro CR, D'Acosta N, et al. 1975. Species differences in carbon tetrachloride - induced hepatotoxicity: the role of CCl₄ activation and of lipid peroxidation. *Toxicol Appl Pharmacol* 34: 102-114.

Diaz-Munoz M, Tapia R. 1988. Glutamate decarboxylase inhibition and vitamin B6 metabolism in brain of cirrhotic rats chronically treated with carbon tetrachloride. *J Neurosci Res* 20:376-382.

*Dickens BF. 1991. Free radical mechanisms of xenobiotic mammalian cytotoxicities. Washington, DC: The George Washington University Medical Center.

*Dilling WL. 1977. Interphase transfer processes. II. Evaporation of chloromethanes, ethanes, propanes and polypropylenes from dilute aqueous solutions. Comparisons with theoretical predictions. *Environ Sci Technol* 11:405-409.

8. REFERENCES

*Dilling WL, Tefertiller NB, Kallos GJ. 1975. Evaporation rates and reactivities of methylene chloride, chloroform, 1, 1, 1-trichloroethane, trichloroethylene, tetrachloroethylene, and other chlorinated compounds in aqueous solutions. *Environ Sci Technol* 9:833-838.

DiSilvestro RA, Carlson GP. 1990. Effects of moderate copper deficiency on carbon tetrachloride-induced hepatotoxicity in rats. *Society for Experimental Biology and Medicine* 32-35.

*DiSilvestro RA, Medeiros DM. 1992. Low and marginal copper intake by postweaning rats: effects on copper status and resistance to carbon tetrachloride hepatotoxicity. *Metabolism* 41:1122-1124.

Dittman EC, Etschenberg E. 1973. Endoanesthetic and narcotic activity of halogenated methane derivatives. *Eur J Pharmacol* 24: 389-398.

*Docherty JF, Burgess E. 1922. The action of carbon tetrachloride on the liver. *Br Med J* 2:907-908.

*Docherty JF, Nicholls L. 1923. Report of three autopsies following carbon tetrachloride treatment. *Br Med J* 2:753.

Dogterom P, Nagelkerke JF, van Steveninck J, et al. 1988. Inhibition of lipid peroxidation by disulfiram and diethyldithiocarbamate does not prevent hepatotoxin-induced cell death in isolated rat hepatocytes. A study with allyl alcohol, tert-butyl hydroperoxide, diethyl maleate, bromoisovalerylurea and carbon tetrachloride. *Chem Biol Interact* 66:251-265.

*Doi K, Kurabe S, Shimazu N, et al. 1991. Systemic histopathology of rats with CCl₄-induced hepatic cirrhosis. *Lab Anim* 25:21-25.

Dolak JA, Britton RS, Glende EA, et al. 1987. Chlordecone does not interfere with hepatic repair after carbon tetrachloride or partial hepatectomy. *J Biochem Toxicol* 2:57-66.

Dolak JA, Waller RL, Glende EA, et al. 1988. Liver cell calcium homeostasis in carbon tetrachloride liver cell injury: new data with Fura2¹. *J Biochem Toxicol* 3:329-342.

8. REFERENCES

Doolittle DJ, Muller G, Scribner HE. 1987. Relationship between hepatotoxicity and induction of replicative DNA synthesis following single or multiple doses of carbon tetrachloride. *J Toxicol Environ Health* 22:63-78.

*Doong RA, Wu SC. 1992. Reductive dechlorination of chlorinated hydrocarbons in aqueous solutions containing ferrous and sulfide ions. *Chemosphere* 24: 1063- 1075.

Dowty DC, Laseter JL, Storer J. 1975. Halogenated hydrocarbons in New Orleans drinking water and blood plasma. *Science* 187:75-77.

*Dragiani TA, Manenti G, Porta GD. 1986. Enhancing effects of carbon tetrachloride in mouse hepatocarcinogenesis. *Cancer Lett* 31: 171-179.

*Driscoll TR, Hamdan HH, Wang G, et al. 1992. Concentrations of individual serum or plasma bile acids in workers exposed to chlorinated aliphatic hydrocarbons. *Br J Ind Med* 49:700-705.

Drotman RB, Lawhorn GT. 1978. Serum enzymes as indicators of chemically induced liver damage. *Drug Chem Toxicol* 1:163-171.

Durk H, Klessen C, Frank H. 1987. Tetrachloromethane metabolism in vivo under normoxia and hypoxia:biochemical and histopathological effects relative to alkane exhalation. *Arch Toxicol* 60:115-121.

*Durden WD Jr., Chipman DW. 1967. Gasoline sniffing complicated by acute carbon tetrachloride poisoning. *Arch Intern Med* 119:371-374.

Edgerton SA, Holdren MW, Smith DL, et al. 1989. Inter-urban comparison of ambient volatile organic compound concentrations in U.S. cities. *JAPCA* 39:729-732.

Edwards JE. 1941. Hepatomas in mice induced with carbon tetrachloride. *J Natl Cancer Inst* 2: 197-199.

8. REFERENCES

*Edwards J, Heston WE, Dalton AJ. 1942. Induction of the carbon tetrachloride hepatoma in strain L mice. *J Natl Cancer Inst* 3:297-301.

Edwards EA, Liang LN, Grbic-Galic D. 1993. Anaerobic microbial transformation of aromatic hydrocarbons and mixtures of aromatic hydrocarbons and halogenated solvents. Stanford, CA: Environmental Engineering and Science program, Department of Civil Engineering.

Egli C, Tschan T, Scholtz R, et al. 1988. Transformation of tetrachloromethane to dichloromethane and carbon dioxide by *acetobacterium woodii*. *Appl Environ Microbiol* 54:2819-2824.

*Eichelberger JW, Budde WL. 1989a. Method 524.1. Measurement of purgeable organic compounds in water by packed column gas chromatography/mass spectrometry. Cincinnati, OH: U.S. Environmental Protection Agency, Office of Research and Development.

*Eichelberger JW, Budde WL. 1989b. Method 524.2. Measurement of purgeable organic compounds in water by capillary column gas chromatography/mass spectrometry. Cincinnati, OH: U.S. Environmental Protection Agency, Office of Research and Development.

*Eichelberger JW, Bellar TA, Donnelly JP, et al. 1990. Determination of volatile organics in drinking water with USEPA method 524.2 and the ion trap detector. *J Chromatog Sci* 28:460-467.

*Elkins HB. 1942. Maximal allowable concentrations. II. Carbon tetrachloride. *J Ind Hyg Toxicol* 24:233-235.

*Ellenhorn MJ, Barceloux DG. 1988. Medical toxicology: diagnosis and treatment of human poisoning. New York, NY: Elsevier, 969-972.

*Endou H, Koseki C, Hasmura S, et al. 1982. Renal cytochrome P-450: Its localization along a single nephron and its induction. In: Morel F, ed. Biochemistry of kidney functions. INSERM Symposium No. 21 a Elsevier Biomedical Press B.V. 319-327.

*EPA. 1975. Preliminary assessment of suspected carcinogens in drinking water: interim report to the Congress. Washington, DC: U.S. Environmental Protection Agency.

8. REFERENCES

*EPA. 1980a. U.S. Environmental Protection Agency. Federal Register. 45:33084-33133.

EPA. 1980b. Volatile organic compounds by purge and trap isotope dilution GC-MS method 1624. Washington, DC: U.S. Environmental Protection Agency.

*EPA. 1980c. U.S. Environmental Protection Agency. Federal Register. 45:79318.

EPA. 1980d. U.S. Environmental Protection Agency. Federal Register 45:79347-79357.

EPA. 1981a. Carbon tetrachloride. Washington, DC: U.S. Environmental Protection Agency, Office of Drinking Water. September 11, 1981.

EPA. 1981b. Treatability Manual. Washington, DC: U.S. Environmental Protection Agency, Office of Research and Development. EPA-600/2-82-001 A.

*EPA. 1982a. Purgeable halocarbons-method 601. Methods for organic chemical analysis of municipal and industrial wastewater. U.S. Environmental Protection Agency, 601-1 to 601-10.

*EPA. 1982b. Purgeables-method 624. Methods for organic chemical analysis of municipal and industrial wastewater. Cincinnati, OH: U.S. Environmental Protection Agency, Environmental Monitoring Support Laboratory. 624-I to 624-12.

*EPA. 1984. Health assessment document for carbon tetrachloride. Cincinnati, OH: U.S. Environmental Protection Agency, Office of Research and Development. EPA-600/8-82-001F.

*EPA. 1985a. Assessment of the mutagenic potential of carbon disulfide, carbon tetrachloride, dichloromethane, ethylene dichloride and methyl bromide: a comparative analysis in relation to ethylene dibromide. Washington, DC: U.S. Environmental Protection Agency, Office of Health and Environmental Assessment. EPA/600/6-85/001.

*EPA. 1985b. U.S. Environmental Protection Agency. Federal Register. 50:FR 32621-32627.

8. REFERENCES

*EPA. 1985. U.S. Environmental Protection Agency. Part II. Federal Register. 50: 13456-13522.

EPA. 1985d. Final draft criteria document for carbon tetrachloride. Washington, DC: U.S. Environmental Protection Agency, Office of Drinking Water.

*EPA. 1985e. U.S. Environmental Protection Agency. Part III. Federal Register. 50:46880-46901.

*EPA. 1985f. Survey of carbon tetrachloride emission sources. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. EPA-450/3-85-018.

*EPA. 1986a. Gas chromatography/mass spectrometry for volatile organics-method-8240. Test methods for evaluating solid waste. SW-846. Washington, DC: U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response, 8240-I to 8240-40.

*EPA. 1986b. Halogenated volatile organics-method 8010. Test methods for evaluating solid waste. SW-846. Washington, DC: U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response, 8010-1 to 8010-13.

*EPA. 1986c. U.S. Environmental Protection Agency. Federal Register. 51:41004.

EPA. 1986d. Reference values for risk assessment. Cincinnati, OH: U.S. Environmental Protection Agency, Environmental Criteria and Assessment Office. ECAO-CIN-477.

*EPA. 1987a. U.S. Environmental Protection Agency. Federal Register. 50:8140.

EPA. 1987b. Health advisory for carbon tetrachloride. Washington DC: U.S. Environmental Protection Agency, Office of Drinking Water. March 31.

*EPA. 1987c. U.S. Environmental Protection Agency. Part II. Federal Register. 52:25942-25953.

8. REFERENCES

*EPA. 1987d. U.S. Environmental Protection Agency. Part II. Federal Register. 52:25690-25717.

*EPA. 1987e. U.S. Environmental Protection Agency. Part II. Federal Register. 52:47495-47519.

EPA. 1988a. Evaluation of the potential carcinogenicity of carbon tetrachloride (56-23-5). Final Report. Washington, DC: U.S. Environmental Protection Agency, Office of Health and Environmental Assessment. OHEA-C-073-50.

*EPA. 1988b. U.S. Environmental Protection Agency. Part II. Federal Register 53:4500-4501.

*EPA. 1989a. Interim Methods for Development of Inhalation Reference Doses, EPA/600/8-88/066F, August, 1989.

*EPA. 1989b. Health effects assessment for carbon tetrachloride. Cincinnati, OH: U.S. Environmental Protection Agency, Office of Research and Development, EPA/600/8-89/088.

*EPA. 1989c. Federal Register, Vol. 54, No. 155 33418, 33453.

*EPA. 1990. Toxics in the community. 1988 national and local perspectives. Washington, DC: U.S. Environmental Protection Agency, Office of Toxic Substances Economics and Technology Division.

*EPA. 1991. U.S. Environmental Protection Agency. Toxics in the community. National and local perspectives. Washington, DC: Office of Toxic Substances. EPA 560/4-91-014.

*Eschenbrenner AB, Miller E. 1944. Studies on hepatomas -- Size and spacing of multiple doses in the induction of carbon tetrachloride hepatomas. J Natl Cancer Inst 4:385-388.

*Eschenbrenner AB, Miller E. 1946. Liver necrosis and the induction of carbon tetrachloride hepatomas in strain A mice. J Natl Cancer Inst 6:325-341.

8. REFERENCES

Esparza RJ, Mahmood RJ, Sedman RM. 1991. Hazardous waste incineration: a correlation of operating parameters with risk and emission rates. *Waste Management*. 11:163-170.

*Farrell CL, Senseman LA. 1944. Carbon tetrachloride polyneuritis. A case report. *RI Med J* 27:334, 346.

*FDA. 1970. Food and Drug Administration. Part 191-Hazardous substances: definitions and procedural and interpretive regulations. Carbon tetrachloride: findings of fact and conclusions and final order regarding classification as banned hazardous substance. *Federal Register*. 35:13198-13205.

*Fischer-Nielsen A, Poulsen HE, Hansen BA, et al. 1991. Ccl, cirrhosis in rats: irreversible histological changes and differentiated functional impairment. *J Hepatol* 12: 110-117.

Fiserova-Bergerova V, Pierce JT, Droz PO. 1990. Dermal absorption potential of industrial chemicals: criteria for skin notation. *Am J Ind Med* 17:617-635.

*Folland DS, Schaffner W, Ginn EH, et al. 1976. Carbon tetrachloride toxicity potentiated by isopropyl alcohol. *J Am Med Assoc* 236: 1853-1856.

*Fowler JSL. 1969. Carbon tetrachloride metabolism in the rabbit. *Br J Pharmacol* 37:733-737.

Foxell AWH. 1951. Three cases of carbon tetrachloride poisoning with one fatality. *Br Med J* 1:397.

Frank H, Frank W. 1988. Quantitative determination of airborne C₁ and C₂-halocarbons by GC/ECD. *Journal of High Resolution Chromatography and Chromatography Communications* : 51-56.

*FSTRAC. 1990. Summary of state and federal drinking water standards and guidelines. Federal-State Toxicology and Regulatory Alliance Committee. March, 1988.

8. REFERENCES

Fukai F, Nishizawa S, Kurano M, et al. 1989. Carbon tetrachloride-induced alteration of glutathione S-transferase in rat liver cytosol and plasma. *J Clin Biochem Nutr* 6:175-185.

*Galbally IE. 1976. Man-made carbon tetrachloride in the atmosphere. *Science* 193:573-576.

Galli R, McCarty PL. 1989. Biotransformation of 1,1,1-trichloroethane, trichloromethane, and tetrachloromethane by a *clostridium* sp. *Appl Environ Microbiol* 55:837-844.

*Gardner GH, Gove RC, Gustafson RK, et al. 1925. Studies on the pathological histology of experimental carbon tetrachloride poisoning. *Bulletin of Johns Hopkins Hospital* 36:107-133.

Garcia C, Tiedra G, Ruano A, et al. 1992. Evaluation of the liquid-liquid extraction technique and application to the determination of volatile halo-organic compounds in chlorinated water. *J Chromatogr* 605:251-255.

*Gargas ML, Andersen ME, Clewell III HJ. 1986. A physiologically based simulation approach for determining metabolic constants from gas uptake data. *Toxicol Appl Pharmacol* 86:341-352.

*Garner RC, McLean AEM. 1969. Increased susceptibility to carbon tetrachloride poisoning in the rat after pretreatment with oral phenobarbitone. *Biochem Pharmacol* 18:645-650.

*Garry VF, Nelson RL, Griffith J, et al. 1990. Preparation for human study of pesticide applicators: sister chromatid exchanges and chromosome aberrations in cultured human lymphocytes exposed to selected fumigants. *Teratogenesis Carcinog Mutagen* 10:21-29.

Germolec DR, Yang RS, Ackermann MF, et al. 1989. Toxicology studies of a chemical mixture of 25 groundwater contaminants. II. Immunosuppression in B6C3F1 mice. *Fund Appl Toxicol* 13:377-387.

*Gillespie WR, Cheung LL, Kim HJ, et al. 1990. Application of system analysis to toxicology: Characterization of carbon tetrachloride oral absorption kinetics. In: Gentry TR, Henry CJ, eds. *Principles of route-to-route extrapolations for risk assessment*. Elsevier Science Publishing Company.

8. REFERENCES

*Gilman MR. 1971. A preliminary study of the teratogenic effects of inhaled carbon tetrachloride and ethyl alcohol consumption in the rat. Dissertation. Philadelphia, PA: Drexel University.

*Glende EA. 1972. Carbon tetrachloride-induced protection against carbon tetrachloride toxicity. The role of the liver microsomal drug-metabolizing system. *Biochem Pharmacol* 21: 1697- 1702.

Glende EA, Pushpendran CK. 1986. Activation of phospholipase A2 by carbon tetrachloride in isolated rat hepatocytes. *Biochem Pharmacol* 35:3301-3307.

*Glende EA, Recknagel RO. 1991. An indirect method demonstrating that CCl₄dependent hepatocyte injury is linked to a rise in intracellular calcium ion concentration. *Res Commun Chem Pathol Pharmacol* 73:41-52.

*Glende EA, Recknagel RO. 1992. Phospholipase A, activation and cell injury in isolated rat hepatocytes exposed to bromotrichloromethane, chloroform, and 1, 1-dichloroethylene as compared to effects of carbon tetrachloride. *Toxicol Appl Pharmacol* 113:159-162.

*Glende EA Jr., Hruszkewycz AM, Recknagel RO. 1976. Critical role of lipid peroxidation in carbon tetrachloride-induced loss of aminopyrine demethylase, cytochrome P-450 and glucose 6-phosphatase. *Biochem Pharmacol* 25:2163-2170.

Golderman L, Gellert J, Teschke R. 1983. Methods and Devices. Quantitative assessment of carbon tetrachloride levels in human blood by head-space gas chromatography: application in a case of suicidal carbon tetrachloride intoxication. *Intensive Care Medicine* 9: 13 1-135.

Goldsmith LB, Friberg SE, Wahlberg JE. 1988. The effect of solvent extraction on the lipids of the stratum corenum in relation to observed immediate whitening of the skin. *Contact Dermatitis* 19:348-350.

*Gordon AJ. 1944. Uremia following inhalation of carbon tetrachloride. *J Mt Sinai Hosp NY* 10:792-795.

8. REFERENCES

- *Gosselin RE, Hodge HC, Smith RP, Gleason MN, eds. 1976. Clinical toxicology of commercial products. Acute poisoning. 4th ed., Baltimore, MD: The Williams and Wilkins Co. 13, 92-97, 110.
- *Gould VE, Smuckler EA. 1971. Alveolar injury in acute carbon tetrachloride intoxication. Arch Intern Med 128:109-117.
- Grant WB, Kagann RH, McClenny WA. 1992. Optical remote measurement of toxic gases. J Air Waste Manage Assoc 42: 18-30.
- *Gray I. 1947. Carbon tetrachloride poisoning -- Report of seven cases with two deaths. NY State J Med 47:2311-2315.
- *Gryder-Boutlet DE, Kennish JM. 1988. Using headspace sampling with capillary column GC-MS to analyze trace volatile organics in water and wastewater. Journal of the American Water Works Association. October. 52-55.
- Guengerich FP, Kim DH, Iwasaki M. 1991. Role of human cytochrome P-450 BE1 in the oxidation of many low molecular weight cancer suspects. Chem Res Toxicol 5:168-179.
- *Guide DM, McKenna R, Mathews WR. 1993. Quantitation of hydroperoxy-eicosatetraenoic acids and hydroxy-eicosatetraenoic acids as indicators of lipid peroxidation using gas chromatography-mass spectrometry. Anal Biochem 209: 123-129.
- *Guild WR, Young JV, Merrill JP. 1958. Anuria due to carbon tetrachloride intoxication. Ann Intern Med 48: 1221-1227.
- *Haddad LM, Winchester JF. 1990. Clinical management of poisoning and drug overdose. 2nd ed. Philadelphia, PA: W.B. Saunders Company, 1218-1219, 1257-1259.
- *Hafeman DG, Hoekstra WG. 1977. Protection against carbon tetrachloride-induced lipid peroxidation in the rat by dietary vitamin E, selenium and methionine as measured by ethane evolution. J Nutr 107:656-665.

8. REFERENCES

*Hall MC. 1921. The use of carbon tetrachloride for the removal of hookworms. J Am Med Assoc 77:1641-1643.

*Hall P dela M, Plummer JL, Ilesley AH, et al. 1990. Hepatic fibrosis and cirrhosis after chronic administration of alcohol and "low-dose" carbon tetrachloride vapor in the rat. Hepatology 13:815-819.

Hammock BD, Gee SJ, Cheung PYK, et al. 1987. Utility of immunoassay in pesticide trace analysis. In: Greenhalgh R, Roberts TR, eds. Pesticide Science and Biotechnology. New York, NY: Blackwell Scientific Publications.

*Hanasono GK, Cote MG, Plaa GL. 1975. Potentiation of carbon tetrachloride-induced hepatotoxicity in alloxan- or streptozotocin-diabetic rats. J Pharmacol Exp Therap 192:592-604.

*Hansch C, Leo A. 1979. Substituent constants for correlation analysis in chemistry and biology. New York, NY: John Wiley & Sons. 25-26, 171-180.

Hanst PL. 1978. Part II: Halogenated pollutants. Noxious trace gases in the air. Chemistry 51:6-12.

Hardell L, Eriksson M, Lenner P, et al. 1981. Malignant lymphoma and exposure to chemicals especially organic solvents, chlorophenols and phenoxy acids: a case-control study. Br J Cancer 43:169-176.

*Hardin BL. 1954. Carbon tetrachloride poisoning. A review. Ind Med Surg 23:93-105.

Harms MS, Peterson RE, Fujimoto JM, et al. 1976. Increased "bile duct--pancreatic fluid" flow in chlorinated hydrocarbon-treated rats. Toxicol Appl Pharmacol 35:4 I-49,

Harris L, Morris LE, Farber E. 1989. Protective value of a liver initiation-promotion regimen against the lethal effect of carbon tetrachloride in rats. Lab Invest 61:467-470.

8. REFERENCES

*Harris RN, Anders MW. 1980. Effect of fasting, diethyl maleate and alcohols on carbon tetrachloride-induced hepatotoxicity. *Toxicol Appl Pharmacol* 56: 191-198.

Harris RN, Ratnayake JH, Garry VF, et al. 1982. Interactive hepatotoxicity of chloroform and carbon tetrachloride. *Toxicol Appl Pharmacol* 63:281-291.

Hatch GE, Santrock J, Slade R, et al. 1988. Detection of CCl₄-induced oxidation of hepatic tissue *in vivo* by oxygen- 18 tracing. *Toxicol Appl Pharmacol* 93 : 81-88.

*Hawthorne SB. 1988. Workshop on supercritical fluid chromatography. American Laboratory 6-8.

*Hayes JR, Condie LW, Borzelleca JF. 1986. Acute, 14-day repeated dosing, and go-day subchronic toxicity studies of carbon tetrachloride in CD-1 mice. *Fund Appl Toxicol* 7:454-463.

*HazDat. 1993. Agency for Toxic Substances and Disease Registry (ATSDR), Atlanta, GA. October, 1993.

Hazle JD, Narayana PA, Dunsford HA. 1991. *In vivo* NMR, biochemical, and histologic evaluation of alcohol-induced fatty liver in rat and a comparison with CCl₄ hepatotoxicity. *Magn Reson Med* 19: 124-135.

*Heimann H, Ford CA. 1941. Low concentration of carbon tetrachloride capable of causing mild narcosis. *Ind Bull* 20, July-August.

*Hellmer L, Bolcsfoldi G. 1992. An evaluation of the *E. coli* K-12 *uvrB/recA* DNA repair hostmediated assay. I. *In vitro* sensitivity of the bacteria to 61 compounds. *Mutat Res* 272:145-160.

Henschler D, Elsasser H, Romen W, et al. 1984. Carcinogenicity study of trichloroethylene with and without epoxide stabilizers, in mice. *J Cancer Res Clin Oncol* 107:149-156.

Hernberg S, Kauppinen T, Riala R, et al. 1988. Increased risk for primary liver cancer among women exposed to solvents. *Stand J Work Environ Health* 14:356-365.

8. REFERENCES

*Hernandez-Munoz R, Diaz-Munoz M, Chagoya de Sanchez V. 1992. Effects of adenosine administration on the function and membrane composition of liver mitochondria in carbon tetrachloride-induced cirrhosis. *Arch Biochem Biophys* 294: 160- 167.

Herzfeld D, van der Gun K, Louw R. 1988. Quantitative determination of volatile organochlorine compounds in water by GC-headspace analysis with dibromomethane as an internal standard. *Chemosphere* 1425-1430.

*Ho JS. 1989. Method 502.2. Volatile organic compounds in water by purge and trap capillary column gas chromatography with photoionization and electrolytic conductivity detectors in series. Cincinnati, OH: U.S. Environmental Protection Agency, Office of Research and Development.

*Hollinger MA. 1982. Biochemical evidence for pulmonary endothelial cell injury after carbon tetrachloride administration in mice. *J Pharmacol Exp Therap* 222:641-4.

*Howard PH. (ed). 1990. Handbook of environmental fate and exposure data. Vol. II. Chelsea, MI. Lewis Publishers, Inc., 85-91.

*Howard PH, Boethling RS, Jarvis WF, et al. (ed). 1991. Handbook of environmental degradation rates. Chelsea, MI Lewis Publishers, Inc., 34-35.

*HSDB. 1992. Hazardous Substances Data Bank. National Library of Medicine, National Toxicology Information Program, Bethesda, MD. April 14, 1992.

*HSDB. 1993. Hazardous Substance Data Bank. National Library of Medicine, National Toxicology Information Program. Bethesda, MD. June 1993.

Huang YS, Deng JF, Wang JD, et al. 1987. [Clinical manifestations and laboratory findings of cases in an outbreak of carbon tetrachloride-induced hepatic injury at a printing factory.] (Abstract) [Japanese] 86:743-749.

Huber M, Estermann G, Bonn G. 1988. Analysis of volatile halogenated hydrocarbons on the ppq scale. *Fresenius Z Anal Chem* 331:486-489.

8. REFERENCES

- *Hughes CS. 1985. Chlorinated methanes. In: Chemical economics handbook. Menlo Park, CA: SRI International.
- *Hughes HM, George IM, Evans JC, et al. 1991. The role of the liver in the production of free radicals during halothane anaesthesia in the rat. *Biochem J* 277:795-800.
- *IARC. 1979. Evaluation of the carcinogenic risk of chemicals to humans. Lyon, France: International Agency for Research on Cancer, October 1979, 20:371-399.
- *IARC. 1982. IARC Monographs on the evaluation of the carcinogenic risk of chemicals to humans. Chemicals, industrial processes and industries associated with cancer in humans. IARC Monographs, Volumes 1 to 29, Supplement 4. Lyon, France: International Agency for Research on Cancer.
- *IARC. 1987. IARC Monographs on the evaluation of carcinogenic risks to humans. Overall evaluations of carcinogenicity: An updating of IARC Monographs volumes 1 to 42, Supplement 7. Lyon, France: International Agency for Research on Cancer.
- *Ikatsu H, Nakajima T. 1992. Hepatotoxic interaction between carbon tetrachloride and chloroform in ethanol treated rats. *Arch Toxicol* 66:580-586.
- *Ikatsu H, Okino T, Nakajima T. 1991. Ethanol and food deprivation induced enhancement of hepatotoxicity in rats given carbon tetrachloride at low concentration. *Br J Ind Med* 48:636-642.
- Infante FI, Marlow PB. 1980. Evidence for the carcinogenicity of selected halogenated hydrocarbons included ethylene dichloride. *Banbury Rep* 5:287-308.
- Ingall A, Lott KAK, Slater TF. 1978. Metabolic activation of carbon tetrachloride to a free-radical product study using a spin trap. *Biochem Soc Trans* 6:962-964.
- *IRIS. 1993. Integrated Risk Information System. Washington, DC: U.S. Environmental Protection Agency.

8. REFERENCES

- *Ishiki Y, Ohnishi H, Muto Y, et al. 1992. Direct evidence that hepatocyte growth factor is a hepatotrophic factor for liver regeneration and has a potent antihepatitis effect *in vivo*. *Hepatology* 16: 1227-1235.
- *Itoh S, Yamaba Y, Matsuo S, et al. 1985. Early changes in the levels of serum triiodothyronine (T3), thyroxine (T4), T3/T4 ratio and microsomal carboxylesterase activity in rats following treatment with CCl₄. *Res Commun Chem Pathol Pharmacol* 49:447-450.
- Iwamoto K, Watanaba J, Araki K, et al. 1985. Reduced hepatic clearance of propranolol induced by chronic carbon tetrachloride treatment in rats. *J Pharmacol Exp Ther* 234:470-475.
- *Jiang Z, You Dy, Chen XC, et al. 1992. Monitoring of serum markers for fibrosis during CCl₄-induced liver damage. *J Hepatol* 16:282-289.
- *Jakobson I, Wahlberg JE, Holmberg B, et al. 1982. Uptake via the blood and elimination of 10 organic solvents following epicutaneous exposure of anesthetized guinea pigs. *Tox Appl Pharmacol* 63:181-187.
- Janzen EG, Towner RA, Brauer M. 1988. Factors influencing the formation of the carbon dioxide radical anion (CO₂⁻) spin adduct of PBN in the rat liver metabolism of halocarbons. *Free Radic Res Commun* 4:359-369.
- Janzen EG, Towner RA, Haire DL. 1987. Detection of free radicals generated from the *in vitro* metabolism of carbon tetrachloride using improved esr spin trapping techniques. *Free Radic Res Commun* 3:357-364.
- Javier Perez A, Courel M, Sobrado J, et al. 1987. Acute renal failure after topical application of carbon tetrachloride. *Lancet* 515-516.
- Jeffers PM, Ward LM, Woytowitch LM, et al. 1989. Homogeneous hydrolysis rate constants for selected chlorinated methanes, ethanes, ethenes, and propanes. *Environ Sci Technol* 23 :965-969.

8. REFERENCES

- *Jennings RB. 1955. Fatal fulminant acute carbon tetrachloride poisoning. Arch Pathol 59:269-284.
- Jennings RB, Kearns WM. 1953. Necronizing nephrosis in the rat following administration of carbon tetrachloride. Arch Pathol 56:348-359.
- Johns R. 1976. Air pollution assessment of carbon tetrachloride. Mitre Technical Report No. MTR-7144, McLean, VA: Mitre Corp.
- *Johnson SJ, Hines JE, Burt AD. 1992. Macrophage and perisinusoidal cell kinetics in acute liver rinjury. J Pathol 166:351-358.
- *Johnstone RT. 1948. Occupational medicine and industrial hygiene. St. Louis, MO: CV Mosby Co., 148-158.
- *Joly JG, Villeneuve JP, Marier P. 1977. Chronic ethanol administration induced a form of cytochrome P-450 with specific spectral and catalytic properties. Alcoholism 1: 17-25.
- Jorgenson TA, Meierhenry EF, Rushbrook CJ, et al. 1985. Carcinogenicity of chloroform in drinking water to male Osborne-Mendel rats and female B6C3FI mice. Fund Appl Toxicol 5:760-769.
- Joron GE, Hollenberg CH, Bensley EH. 1957. Carbon tetrachloride -- an underrated hazard. Can Med Assoc J 763:173-175.
- Kalf GF, Post GB, Snyder R. 1987. Solvent toxicology: Recent advances in the toxicology of benzene, the glycol ethers and carbon tetrachloride. Ann Rev Pharmacol Toxicol 27:399-427.
- *Kalla NR, Bansal MP. 1975. Effect of carbon tetrachloride on gonadal physiology in male rats. Acta Anat 91:380-385.
- *Kaminski NE, Stevens WD. 1992. The role of metabolism in carbon tetrachloride-mediated immunosuppression. *In vitro* studies. Toxicology 75: 175-188.

8. REFERENCES

- *Kaminski NE, Barnes DW, Jordan SD, et al. 1990. The role of metabolism in carbon tetrachloride-mediated immunosuppression: *in viva* studies. *Toxicol Appl Pharmacol* 102:9-20.
- *Kaminski NE, Jordan SD, Holsapple MP. 1989. Suppression of humoral and cell-mediated immune responses by carbon tetrachloride. *Fund Appl Toxicol* 12: 117-128.
- Kanta J, Kvasnickova E, Bartos F. 1992. Prolonged reduction of hepatocyte proliferative ability in rats after a single treatment with carbon tetrachloride. *Int J Exp Path* 73:21-26.
- Kaphalia BS, Ansari GA. 1989. Covalent modification of hepatic microsomal lipids of rats by carbon tetrachloride. *Mol Toxicol* 2:199-213.
- *Katami T, Nisikawa H, Yasuhara A. 1992. Emission of chlorinated compounds by combustion of waste dry-cleaning materials. *Chemosphere* 24:343-349.
- Kato H, Nakazawa Y. 1987. The effect of carbon tetrachloride on the enzymatic hydrolysis of cellular triacylglycerol in adult rat hepatocytes in primary monolayer culture. *Biochem Pharmacol* 36: 1807-1814.
- Kato K, Kawai T, Fujii M, et al. 1985. Enhancing effect of preadministration of carbon tetrachloride on methylazoxymethanol acetate-induced intestinal carcinogenesis. *J Toxicol Sci* 10:289-293.
- *Kazantzis G, Bomford RR. 1960. Dyspepsia due to inhalation of carbon tetrachloride vapor. *Lancet*, February 13, 360-362.
- Kefalas V, Stacey NH. 1989. Potentiation of carbon tetrachloride-induced lipid peroxidation by trichloroethylene in isolated rat hepatocytes: no role in enhanced toxicity. *Toxicol Appl Pharmacol* 101:158-169.
- Kefalas V, Stacey NH. 1991. Potentiating effects of chlorinated hydrocarbons on carbon tetrachloride toxicity in isolated rat hepatocytes and plasma membranes. *Toxicol Appl Pharmacol* 109: 171-179.

8. REFERENCES

*Kenaga EE. 1980. Predicted biconcentration factors and soil absorption coefficients of pesticides and other chemicals. *Ecotoxicol Environ Safety* 4:26-38.

Kenel MF, Kulkarni AP. 1985a. Ethanol potentiation of carbon tetrachloride hepatotoxicity : possible role for the *in vivo* inhibition of aldehyde dehydrogenase. *Gen Pharmacol* 16:355-360.

Kenel MF, Kulkarni AP. 1985b. Inhibition of hepatic aldehyde dehydrogenase by carbon tetrachloride: an in vitro study. *Int J Biochem* 17:605-610.

Kennedy GL, Graepel GJ. 1991. Acute toxicity in the rat following either oral or inhalation exposure. *Toxicol Lett* 56:317-326.

*Kerfoot HB. 1990. Soil-gas surveys for detection and delineation of groundwater contamination. *Trends in Analytical Chemistry* 9:157-163.

*Kim HJ, Bruckner JV, Dallas CE, et al. 1990a. Effect of dosing vehicles on the pharmacokinetics of orally administered carbon tetrachloride in rats. *Toxicol Appl Pharmacol* 102: 50-60.

*Kim HJ, Odendhal S, Bruckner JV. 1990b. Effect of oral dosing vehicles on the acute hepatotoxicity of carbon tetrachloride in rats. *Toxicol Appl Pharmacol* 102:34-49.

Kim YK. 1988. Hypogonadism in hepatic failure. *Nishinihon Journal of Urology* 50:1-6.

*Kittleson KD, Borden CW. 1956. Acute renal failure due to carbon tetrachloride poisoning. *Northwestern University Medical School Magazine* 30: 117-123.

Klaassen CD, Plaa GL. 1966. Relative effects of various chlorinated hydrocarbons on liver and kidney function in mice. *Toxicol Appl Pharmacol* 9: 139-151.

*Klaunig JE, Ruth RJ, Pereira MA. 1986. Carcinogenicity of chlorinated methane and ethane compounds administered in drinking water to mice. *Environ Health Perspect* 69:89-95.

8. REFERENCES

Kliest J, Fast T, Boley JS. 1989. The relationship between soil contaminated with volatile organic compounds and indoor air pollution. *Environment International* 15:419-425.

*Kluwe WM. 1981. The nephrotoxicity of low molecular weight halogenated alkane solvents, pesticides and chemical intermediates. *Toxicol Kidney* 179-226.

*Kluwe WM, Herrmann CL, Hook JB. 1979. Effects of dietary polychlorinated biphenyls and polybrominated biphenyls on the renal and hepatic toxicities of several chlorinated hydrocarbon solvents in mice. *J Toxicol Environ Health* 5:605-615.

Knecht KT, Mason RP. 1988. In vivo radical trapping and biliary secretion of radical adducts of carbon tetrachloride-derived free radical metabolites. *Drug Metab Dispos* 16:813-817.

*Knecht KT, Mason RP. 1991. The detection of halocarbon-derived radical adducts in bile and liver of rats. *Drug Metab Dispos* 19:325-331.

*Kniepert E, Siegemund A, Gorisch V. 1990. Influence of ethanol pretreatment of differing duration on toxic effects of carbon tetrachloride in rats. *Biomed Biochim Acta* 49: 1097-1102.

*Kniepert E, Siegemund A, Rosenkranz M, et al. 1991. Toxic effects of carbon tetrachloride during short and long term ethanol intake in rats. *Arch Toxicol Suppl* 14:263-265.

Kodavanti PR, Joshi UM, Mehendale HM. 1989a. Chlordecone (Kepone)-potentiated carbon tetrachloride hepatotoxicity in partially hepatectomized rats - a histomorphometric study. *J Appl Toxicol* 9: 367-375.

Kodavanti PR, Joshi UM, Young RA, et al. 1989b. Protection of hepatotoxic and lethal effects of CCl₄, by partial hepatectomy. *Toxicol Pathol* 17:494-505.

Kodavanti PR, Joshi UM, Young RA, et al. 1989c. Role of hepatocellular regeneration in chlordecone potentiated hepatotoxicity of carbon tetrachloride. *Arch Toxicol* 63:367-375.

8. REFERENCES

Kodavanti PR, Kodavanti UP, Mehendale HM. 1990a. Altered hepatic energy status in chlordecone (Kepone)-potentiated Ccl, hepatotoxicity. *Biochem Pharmacol* 40:859-866.

*Kodavanti PR, Kodavanti UP, Mehendale HM. 1990b. Carbon tetrachloride-induced alterations of hepatic calmodulin and free calcium levels in rats pretreated with chlordecone. *Hepatology* 9:230-238.

*Kodavanti PR, Kodavanti UP, Faroon OM, et al. 1992. Pivotal role of hepatocellular regeneration in the ultimate hepatotoxicity of CCl₄, in chlordecone-, mirex, or phenobarbital-pretreated rats. *Toxicol Pathol* 20:556-569.

*Kodavanti PR, Rao VC, Mehendale HM. 1993. Loss of calcium homeostasis leads to progressive phase of chlordecone-potentiated carbon tetrachloride hepatotoxicity. *Toxicol Appl Pharmacol* 122:77-87.

*Kohno H, Hoshino Y, Katoh S, et al. 1992. Effect of retinoic acid on liver transglutaminase activity and carbon tetrachloride-induced liver damage in mice. *Experientia* 48:386-388.

*Korsrud GO, Grice HC, McLaughlan JM. 1972. Sensitivity of several serum enzymes in detecting carbon tetrachloride-induced liver damage in rats. *Toxicol Appl Pharmacol* 22:474-483.

*Kostyuk VA, Potapovich AI. 1991. Damage of rat liver microsomal mixed function oxidase system by carbon tetrachloride *in vivo* study with selective inhibitor of lipid peroxidation. *Biochemistry International* 25: 349-353.

Kravetz D, Bosch J, Arderiu M, et al. 1989. Hemodynamic effects of blood volume restitution following a hemorrhage in rats with portal hypertension due to cirrhosis of the liver: Influence of the extent of portal-systemic shunting. *Hepatology* 9:808-814.

Kroneld R, Reunanen M. 1990. Determination of volatile pollutants in human and animal milk by GC-MS. *Bull Environ Contam Toxicol* 44:917-923.

8. REFERENCES

*Kronevi T, Wablberg J, Holmberg B. 1979. Histopathology of skin, liver, and kidney after epicutaneous administration of five industrial solvents to guinea pigs. *Environ Res* 19:56-69.

Kubic VL, Anders MW. 1980. Metabolism of carbon tetrachloride to phosgene. *Life Sci* 26:2151-2155.

LaCagnin LB, Connor HD, Mason RP, et al. 1987. The carbon dioxide anion radical adduct in the perfused rat liver: relationship to halocarbon-induced toxicity. *Mol Pharmacol* 33: 35 I-257.

Lachnit V, Pietschmann H. 1960. Activity of serum glutamic-oxaloacetic transaminase and aldolase in workers exposed to halogenated hydrocarbons. *Ind Med Surg* 29:523-526.

*Lai EK, McCay PB, Noguchi T, et al. 1979. *In vivo* spin-trapping of trichloromethyl radicals formed from Carbon tetrachloride. *Biochem Pharmacol* 28:223 I-2235.

Lamb RG, Borzelleca JF, Condie LW, et al. 1989. Toxic interactions between carbon tetrachloride and chloroform in cultured rat hepatocytes. *Toxicol Appl Pharmacol* 101:106-113.

*Lamson PD, Minot AS, Robbins BH. 1928. The prevention and treatment of carbon tetrachloride intoxication. *J Am Med Assoc* 90:345-346.

*LaRegina J, Bozzelli JW, Harkov R, et al. 1986. Volatile organic compounds at hazardous waste sites and a sanitary landfill in New Jersey. *Environmental Progress* 5:18-27.

*Larsen T, Kjeldsen P, Christensen TH. 1992. Sorption of hydrophobic hydrocarbons on three aquifer materials in a flow through system. *Chemosphere* 24:439-451.

*Leach CN. 1922. Carbon tetrachloride in the treatment of hookworm disease. *J Am Med Assoc* 78:1789-1790.

Ledda-Columbano GM, Columbano A, Coni P, et al. 1987. Liver cell proliferation induced by the mitogen ethylene dibromide, unlike compensatory cell proliferation, does not achieve initiation of rat liver carcinogenesis by diethylnitrosamine. *Cancer Lett* 36:247-252.

8. REFERENCES

- *Lehmann KB, Schmidt-Kehl L. 1936. The thirteen most important chlorinated aliphatic hydrocarbons from the standpoint of industrial hygiene. *Arch Hygiene* 116:132-200.
- *Letkiewicz F, Johnston P, Macaluso C, et al. 1983. Carbon tetrachloride; occurrence in drinking water, food and air. Washington, DC: U.S. Environmental Protection Agency, Office of Drinking Water.
- Leung HW. 1991. Development and utilization of physiologically based pharmacokinetic models for toxicological applications. *J Toxicol Environ Health* 32:247-267.
- Lide DR. 1993. CRC handbook of chemistry and physics. 73rd ed. CRC Press, Inc.
- *Lillian D, Singh HB, Appleby A, et al. 1975. Atmospheric fates of halogenated compounds. *Environ Sci Technol* 9: 1042- 1048.
- Lindroos PM, Zarnegar R, Michalopoulos GK. 1990. Hepatocyte growth factor (hepatopoietin A) rapidly increases in plasma before DNA synthesis and liver regeneration stimulated by partial hepatectomy and carbon tetrachloride administration. *Hepatology* 13 :743-750.
- Litterst CL, Farber TM, Van Loon EJ. 1973. Potentiation of Carbon tetrachloride-induced hepatotoxicity in the dog by chronic exposure to phenobarbital. *Toxicol Appl Pharmacol* 24:354-362.
- Lloyd SA, Franklin MR. 1991. Modulation of carbon tetrachloride hepatotoxicity and xenobioticmetabolizing enzymes by corticosterone pretreatment, adrenalectomy and sham surgery. *Toxicol Lett* 55:65-75.
- Lombardi B, Ove P, Reddy TV. 1985. Endogenous hepatic growth-modulating factors and effects of a choline-devoid diet and of phenobarbital on hepatocarcinogenesis in the rat. *Nutr Cancer* 7: 145-154.
- *Long RM, Moore L. 1986a. Elevated cytosolic calcium in rat hepatocytes exposed to carbon tetrachloride. *J Pharmacol Exp Ther* 238: 186-191,

8. REFERENCES

*Long RM, Moore L. 1986b. Inhibition of liver endoplasmic reticulum calcium pump by CCl_4 and release of a sequestered calcium pool. *Biochem Pharmacol* 35:4131-4137.

Long RM, Moore L. 1987. Cytosolic calcium after carbon tetrachloride, 1,1-dichloroethylene, and phenylephrine exposure. Studies in rat hepatocytes with phosphorylase and quin2. *Biochem Pharmacol* 36: 1215-1221.

Long RM, Moore L. 1988. Biochemical evaluation of rat hepatocyte primary cultures as a model for carbon tetrachloride in rats based on arterial blood:inhaled air concentration ratios. *Toxicol Appl Pharmacol* 92:295-306.

*Long RM, Moore L, Schoenberg DR. 1989. Halocarbon hepatotoxicity is not initiated by Ca^{2+} stimulated endonuclease activation. *Toxicol Appl Pharmacol* 97:350-359.

Lopez de1 Pino V, Bolt HM. 1977. [Effects of hepatotoxic agents on hepatic microsomal metabolism of estrogens in the rat.] *Drug Res* 27:2117-20. (German).

*Loveday KS, Anderson BE, Resnick MA, et al. 1990. Chromosome aberration and sister chromatid exchange tests in Chinese hamster ovary cells *in vitro*. V: results with 46 chemicals. *Environ Mol Mutagen* 16:272-303.

*Lovelock JE, Maggs RJ, Wade WJ. 1973. Halogenated hydrocarbons in and over the Atlantic. *Nature* 241: 194-196.

*Lowrey K, Glende EA, Recknagel RO. 1981a. Destruction of liver microsomal calcium pump activity by carbon tetrachloride and bromotrichloromethane. *Biochemical Pharmacology* 30: 135-140.

*Lowrey K, Glende EA, Recknagel RO. 1981b. Rapid depression of rat liver microsomal calcium pump activity after administration of carbon tetrachloride or bromotrichloromethane and lack of effect after ethanol. *Toxicol Appl Pharmacol* 59:389-394.

Loyke HF. 1986. Hematological and blood pressure studies in cell treated rats. *J Environ Pathol Toxicol Oncol* 7 : I-8.

8. REFERENCES

Loyke HF, Maksem JA. 1992. Hepatocellular injury induced by chronic low-dose CCl₄, in spontaneous and renal hypertensive rats: a correlation to the reversal of experimental rat hypertensive models. *J Environ Pathol Toxicol Oncol* 11:38-42.

Lu PC. 1992. A health hazard assessment in school arts and crafts. *J Environ Pathol Toxicol Oncol* 11:12-17.

Lundh HAB. 1964. Sequence comparison between kidney and liver lesions in the rat following carbon tetrachloride poisoning. *J Occup Med* 6: 123-128.

*Luster MI, Munson AE, Thomas PT, et al. 1988. Development of a testing battery to assess chemical-induced immunotoxicity: National Toxicology Program's guidelines for immunotoxicity evaluation in mice. *Fundam Appl Toxicol* 10:2-19.

*Lutz RW, Shires TK. 1978. Polysomal changes in rats treated with lethal doses of carbon tetrachloride. *Toxicol Appl Pharmacol* 45:653-663.

*Lynn GE, Vorhes FA. 1957. Residues in foods and feeds resulting from fumigation of grains with the commoner liquid formulations of carbon disulfide, carbon tetrachloride, ethylene dichloride and ethylene dibromide. *J Assoc Off Agric Chem* 40: 163-165.

Ma LY, LaCagnin LB, Bowman L, et al. 1989. Carbon tetrachloride inhibits synthesis of pulmonary surfactant disaturated phosphatidylcholines and ATP production in alveolar type II cells. *Acta Biochem Biophys* 1003: 136-144.

*Mabey W, Mill T. 1978. Critical review of hydrolysis of organic compounds in water under environmental conditions. *J Phys Chem* 7:383-415.

*Mabey WR, Smith JH, Podoll RT, et al. 1982. Aquatic fate process data for organic priority pollutants. Washington, DC: U.S. Environmental Protection Agency, Office of Water Regulations and Standards. EPA 440/4-81-014. PB87-169090.

8. REFERENCES

*Mackay DM, Freyberg DL, Goltz MN, et al. 1983. A field experiment of ground water transport of halogenated organic solutes (Preprint Extended Abstract). American Chemical Society 196th National Meeting of Division of Environmental Chemists 23:368-71.

*MacMahon HE, Weiss S. 1929. Carbon tetrachloride poisoning with microscopic fat in the pulmonary artery. Am J Pathol 5:623-630.

Maklan, DM, Steele DH, Dietz SK, et al. 1987. Household solvent products: a "shelf" survey with laboratory analysis. Washington, DC: U.S. Environmental Protection Agency, Office of Toxic Substances. EPA-OTS 560/5-87-006.

*Mannering GJ. 1985. Drug metabolism in the newborn. Fed Proc 44:2302-2308.

*Manno M, deMatteis F, King LJ. 1988. The mechanism of the suicidal, reductive inactivation of microsomal cytochrome P-450 by carbon tetrachloride. Biochem Pharmacol 37: 1981-1990.

*Manno M, Ferrara R, Cazzaro S, et al. 1992. Suicidal inactivation of human cytochrome P-450 by carbon tetrachloride and halothane *in vitro*. Pharmacol Toxicol 70: 13-18.

Manno M, Rezzadore M, Cazzaro S. 1991. Suicidal inactivation of cytochrome P-450 by halothane and carbon tetrachloride. Institut Occup Med, Padova, Italy: 329-331.

*Marchand C, McLean S, Plaa GL. 1970. The effect of SKF 525A on the distribution of carbon tetrachloride in rats. J Pharmacol Exp Therap 714:232-238.

*Markham TN. 1967. Renal failure due to carbon tetrachloride. J Occup Med 9: 16-17.

Masuda Y, Nakamura Y. 1990. Effects of oxygen deficiency and calcium omission on carbon tetrachloride hepatotoxicity in isolated perfused livers from phenobarbital-pretreated rats. Biochem Pharmacol 40: 1865-1876.

*Matsubara T, Mori S, Touchi A, et al. 1983. Carbon tetrachloride-induced hepatotoxicity in rats: evidence for different susceptibilities of rats liver lobes. Japan J Pharmacol 33:435-445.

8. REFERENCES

Matkovics B, Novak R, Szabo L, et al. 1978. Effect of acute carbon tetrachloride intoxication on the lipid peroxidation and the enzymes of the peroxide metabolism of rat tissues. *Gen Pharmacol* 9:329-332.

*McCann J, Choi E, Yamasaki E, et al. 1975. Detection of carcinogens as mutagens in the Salmonella/microsome test: assay of 300 chemicals. *Proc Nat Acad Sci* 72:5135-5139.

McCarty LP, Flannagan DC, Randall SA, et al. 1992. Acute toxicity in rats of chlorinated hydrocarbons given via the intratracheal route. *Human Exp Toxicol* 11: 173-177.

McClenny WA, Pleil JD, Lumpkin TA, et al. 1987. Toxic monitoring with canister-based systems. *Proceedings of the APCA Annual Meeting* 80:87/62.3.

*McCollister DD, Beamer WH, Atchison GJ, et al. 1951. The absorption, distribution and elimination of radioactive carbon tetrachloride by monkeys upon exposure to low vapor concentrations. *J Pharmacol Exp Therap* 102: 112-124.

*McConnell G, Ferguson DM, Peason CR, 1975. Chlorinated hydrocarbons and the environment. *Endeavour* 34:13-18.

*McDermott WV, Hardy HL. 1963. Cirrhosis of the liver following chronic exposure to carbon tetrachloride. *J Occup Med* 5:249-251.

*McGuire LW. 1932. Carbon tetrachloride poisoning. *J Am Med Assoc* 99:988-989.

McKinney JD, Maurer RR, Hass JR, et al. 1975. Possible factors in the drinking water of laboratory animals causing reproductive failure. In: Keith LH, ed. *Identification and Analysis of Organic Pollutants in Water*. Ann Arbor, MI: Ann Arbor Science Publishers Inc., 417-432.

*McKone TE. 1987. Human exposure to volatile organic compounds in household tap water: the indoor inhalation pathway. *Environ Sci Technol* 21: 1194-1201.

McKone TE. 1989. Household exposure models. *Toxicol Lett* 49:321-339.

8. REFERENCES

- *McLean AEM, McLean EK. 1966. The effect of diet and 1,1,1-trichloro-2,2-bis-(p-chlorophenyl)ethane (DDT) on microsomal hydroxylating enzymes and on sensitivity of rats to carbon tetrachloride poisoning. *Biochem J* 100:564-571.
- *McMahon BM. 1971. Analysis of commercially fumigated grains for residues of organic fumigants. *J Assoc Off Anal Chem* 54:964-965.
- *Mehendale HM. 1990. Potentiation of halomethane hepatotoxicity by chlordecone: a hypothesis for the mechanism. *Med Hypotheses* 33:289-299.
- *Mehendale HM. 1991. Commentary: Role of hepatocellular regeneration and hepatobular healing in the final outcome of liver injury. A two-stage model of toxicity. *Biochem Pharmacol* 42:1155-1162.
- *Mehendale HM. 1992. Biochemical mechanisms of biphasic dose-response relationships: Role of hormesis. In: *Biological Effects of Low Level Exposures to Chemicals and Radiation*. E.J. Calabrese, ed. Lewis Publishers, Chelsea, MI. 59-94.
- *Mehendale HM, Klingsmith JS. 1988. *In Vitro* metabolism of carbon tetrachloride by rats pretreated with chlordecone, mirex, or phenobarbital. *Toxicol Appl Pharmacol* 93:247-256.
- *Mehendale HM, Ray SD, Cai Z. 1991. Paradoxical toxicity of CCl₄ in isolated hepatocytes from chlordecone, phenobarbital and mirex pretreated rats. *In Vitro Toxicology* 4:187- 196.
- Michael LC, Pellizzari ED, Perritt RL, et al. 1990. Comparison of indoor, backyard, and centralized air monitoring strategies for assessing personal exposure to volatile organic compounds. *Environmental Science and Technology* 24:996-1003.
- *Michael LC, Pellizzari ED, Wiseman RW. 1988. Development and evaluation of a procedure for determining volatile organics in water. *Environmental Science and Technology* 22:565-570.
- *Milanovich FP. 1986. Detecting chloroorganics in groundwater. *Environmental Science and Technology* 20:441-442.

8. REFERENCES

- *Mirsalis JC, Butterworth BE. 1980. Detection of unscheduled DNA synthesis in hepatocytes isolated from rats treated with genotoxic agents: an in vivo-in vitro assay for potential carcinogens and mutagens. *Carcinogenesis* 1:621-625.
- Mirsalis JC, Steinmetz KL. 1990. The role of hyperplasia in liver carcinogenesis. In: *Mouse liver carcinogenesis : mechanisms and species comparisons*. Alan R. Liss, Inc., ed. 149-161.
- *Molina MJ, Rowland FS. 1974. Predicted present stratospheric abundances of chlorine species from photodissociation of carbon tetrachloride. *Geophys Res Lett* 1:309-312.
- Moody DA. 1992. Effect of phenobarbital treatment on carbon tetrachloride-mediated cytochrome P-450 loss and diene conjugate formation. *Toxicol Lett* 61:213-224.
- Moody DE, James JL, Smuckler EA. 1990. Phenobarbital pretreatment alters the localization of CC₄-induced changes in rat liver microsomal fatty acids. *Toxicol Appl Pharmacol* 103: 16-27.
- Moore L, Schoenberg DR, Long RM. 1990. Impact of halogenated compounds on calcium homeostasis in hepatocytes. *Environ Health Perspec* 84: 149-153.
- *Morgan DL, Copper SW, Carlock DL, et al. 1991. Dermal absorption of neat and aqueous volatile organic chemicals in the Fischer 344 rat. *Environ Res* 55:51-63.
- *Mourelle M, Franc0 MT. 1991. Erythrocyte defects precede the onset of CC₄-induced liver cirrhosis protection by silymarin. *Life Sciences* 48: 1083-1090.
- Mourelle M, Meza M. 1990. CC₄-induced lipoperoxidation triggers a lethal defect in the liver plasma membranes. *J Appl Toxicol* 10:23-27.
- Muriel P, Mourelle M. 1990. Prevention by Silymarin of membrane alterations in acute CCl₄, liver damage. *J Appl Toxicol* 10:275-279.
- *Muro H, Shirasawa H, Kosugi I, et al. 1990. Defect of sinusoidal Fc receptors and immune complex uptake in CC₄-induced liver cirrhosis in rats. *Gastroenterology* 99:200-210.

8. REFERENCES

- Murphy SD, Malley S. 1969. Effect of carbon tetrachloride on induction of liver enzymes by acute stress or corticosterone. *Toxicol Appl Pharmacol* 15: 117-130.
- Murray M, Farrell GC. 1984. Different effects of carbon tetrachloride toxicity and cirrhosis on substrate binding to rat hepatic microsomal cytochrome P-450. *Biochem Pharmacol* 33:687-g.
- Murray M, Zaluzny L, Farrell GC. 1987. Impaired Androgen 16 α -hydroxylation in hepatic microsomes from carbon tetrachloride-cirrhotic male rats. *Gastroenterology* 93:141:147.
- Nagai H, Shimazawa T, Yakuo I, et al. 1989a. Role of peptide-leukotrienes in liver injury in mice. *Infammation* 13:673-680.
- Nagai H, Shimazawa T, Yakuo I, et al. 1989b. The role of thromboxane A₂[TxA₂] in liver injury in mice. *Prostaglandins* 38:439-446.
- *Nakajima T, Sato A. 1979. Enhanced activity of liver drug-metabolizing enzymes for aromatic and chlorinated hydrocarbons following food deprivation. *Toxicol Appl Pharmacol* 50:549-556.
- *Narotsky MG, Hamby BT, Mitchell DS, et al. 1992. Full-litter resorptions caused by low molecular weight halocarbons in F-344 rats. *Teratology Society Abstracts*. 472-473.
- NAS. 1977. *Drinking Water and Health*. Washington, DC: National Academy of Science, 703-707
- *NAS. 1978. *Chloroform, carbon tetrachloride, and other halomethanes: and environmental assessment*. Washington, DC: National Academy of Sciences.
- *NAS. 1980. *Drinking Water and Health, Volume 3*. Washington, DC: National Academy of Sciences.
- NAS. 1984. *Causes and effects of changes in stratospheric ozone: update 1983*. Washington DC: National Academy of Sciences.

8. REFERENCES

*NAS/NRC. 1989. Biologic markers in reproductive toxicology. Washington, DC: National Academy of Sciences, National Research Council, National Academy Press.

Nath RG, Li D, Randerath K. 1990. Acute and long-term effects of carbon tetrachloride on DNA modifications (I-compounds) in male mouse liver. *Chem Biol Interactions* 76:343-357.

*NATICH. 1991. NATICH data base report on state, local and EPA air toxics activities. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. National Air Toxics Information Clearinghouse.

*NCI. 1976. Report on carcinogenesis bioassay of chloroform. Bethesda, MD: National Cancer Institute, March 1, 1976.

*Neeley BW. 1977. Material balance analysis of trichlorofluoromethane and carbon tetrachloride in the atmosphere. *Sci Total Environ* 8:267-274.

*Neeley WB, Branson DR, Blau GE. 1974. Partition coefficient to measure bioconcentrations potential of organic chemicals in fish. *Environmental Science and Technology* 8: 1113.

Nelson EDP, Shikiya D, Liu CS. 1987. Multiple air toxics exposure and risk assessment in the South Coast Air Basin. *Proceedings of the APCA Annual Meeting* 89:87/97.4.

*New PS, Lubash GD, Scherr L, et al. 1962. Acute renal failure associated with carbon tetrachloride intoxication. *J Am Med Assoc* 181:903-906.

Nhongsang J, Toskulkao C, Glinsukon T. 1990. Potentiation of the mechanism of carbon tetrachloride induced hepatotoxicity by thinner inhalation. *Research Communications in Substance Abuse* 11:73-76.

Nielsen VK, Larsen J. 1965. Acute renal failure due to carbon tetrachloride poisoning. *Acta Med Scand* 178:363.

8. REFERENCES

NIOSH. 1975. Occupational exposure to carbon tetrachloride. Washington, DC: National Institute for Occupational Safety and Health, Department of Health, Education, and Welfare.

*NIOSH. 1984. Hydrocarbons, halogenated-method 1003. NIOSH Manual of Analytical Methods. 3rd ed. (2nd supplement). Cincinnati, OH: National Institute for Occupational Safety and Health, 1003-1 to 1003-9.

*NIOSH. 1985. Pocket guide to chemical hazards. Washington, DC: U.S. Department of Health and Human Services, National Institute for Occupational Safety and Health.

NIOSH. 1986. NIOSH recommendations for occupational safety and health standards. Atlanta, GA: U.S. Department of Health and Human Services, National Institute for Occupational Safety and Health, September, 1986.

*NIOSH. 1992. Recommendation for occupational safety, health, compendium of policy documents and statements. U.S. Department of Health and Human Services, Centers for Disease Control, NIOSH, Cincinnati, OH.

*Nirmalakhandan NN, Speece RE. 1988. Prediction of aqueous solubility of organic chemicals based on molecular structure. Environmental Science and Technology 22:328-338.

*NJDEP. 1988. STAL for carbon tetrachloride. Trenton, NJ: New Jersey Department of Environmental Protection.

*Noguchi T, Fong K-L, Lai EK, et al. 1982a. Specificity of a phenobarbital-induced cytochrome P-450 for metabolism of carbon tetrachloride to the trichloromethyl radical. Biochem Pharmacol 31:615-624.

*Noguchi T, Fong K-L, Lai EK, et al. 1982b. Selective early loss of polypeptides in liver microsomes of CC_4 -treated rats, Relationship to cytochrome P-450 content. Biochem Pharmacol 31:609-614.

8. REFERENCES

Noll T, Hugo-Wisseman D, Littauer A, et al. 1987. The decisive pO_2 -levels in haloalkane-mediated liver cell injury. *Free Radic Res Commun* 3:293-298.

*Norwood WD, Fuqua PA, Scudder BC. 1950. Carbon tetrachloride poisoning. *Arch Ind Hyg Occup Med* 1:90-100.

NTP. 1985. Fourth annual report on carcinogens (summary). Washington, DC: U.S. Department of Health and Human Services, NTP 85-002, 50-2.

NTP. 1990. Sixth annual report on carcinogens. Summary report to the National Institute of Environmental Health Sciences, Research Triangle Park, NC, by Technical Resources, Inc., Rockville, MD.

O'Hara TM, Sheppard MA, Clarke EC, et al. 1991. A $CCl_4/CHCl_3$ interaction study in isolated hepatocytes: non-induced and phenobarbital-pretreated cells. *J Appl Toxicol* 11: 147-154.

Ochi Y, Yumori Y, Morioka A, et al. 1990. Effect of α -blockade on liver regeneration after carbon tetrachloride intoxication in the rat. *Biochem Pharmacol* 39:2065-2066.

Ogawa M, Mori T, Mori Y, et al. 1992. Study on chronic renal injuries induced by carbon tetrachloride: selective inhibition of the nephrotoxicity by irradiation. *Nephron* 60:68-73.

Oraumbo IF, Van Duuren B. 1989. Evidence for the covalent interaction of carbon tetrachloride with mouse liver chromatin DNA *in vitro*. Laboratory of Organic Chemistry and Carcinogenesis, Report No. L231.13-18.

*Oraumbo IF, Van Duuren BL. 1987. Time-related binding of the hepatocarcinogen carbon tetrachloride to hepatic chromatin proteins *in vitro*. *Carcinogenesis* 8:855-856.

*OSHA. 1989. Occupational Safety and Health Administration. Part III. Federal Register 2679-268 1.

8. REFERENCES

*OSHA. 1993. Occupational Safety and Health Administration: Part V. Federal Register 58:35338-35351.

*OTA. 1990. Neurotoxicity: Identifying and controlling poisons of the nervous system. Washington, DC: Office of Technology Assessment, U.S. Congress. OTA-BA-436. April 1990.

Paddle GM. 1983. Incidence of liver cancer and trichloroethylene manufacture: joint study by industry and a cancer registry. Br Med J 286:846.

Parker KJ, Tuthil TA. 1986. Carbon tetrachloride induced changes in ultrasonic properties of liver. IEEE Trans Biomed Eng 33:453-460.

*Parola M, Leonarduzzi G, Biasi F, et al. 1992. Vitamin E dietary supplementation protects against carbon tetrachloride-induced chronic liver damage and cirrhosis. Hepatology 16: 1014-1021.

Paronetto F, Popper H. 1964. Enhanced antibody formation in experimental acute and chronic liver injury produced by carbon tetrachloride or allyl alcohol. Proc Soc Exp Bio Med 116: 1060-1064.

*Past MR, Cook DE. 1982. Effect of diabetes on rat liver cytochrome P-450: Evidence for a unique diabetes-dependent rat liver cytochrome P-450. Biochem Pharmacol 31:3329-3334.

*Paul BB, Rubinstein D. 1963. Metabolism of carbon tetrachloride and chloroform by the rat. J Pharmacol Exp Ther 141:141-148.

*Paustenbach DJ, Carlson GP, Christian JE, et al. 1986a. A comparative study of the pharmacokinetics of carbon tetrachloride in the rat following repeated inhalation exposures of eight and 11.5 hr/day. Fund Appl Toxicol 6:484-497.

*Paustenbach DJ, Christian JE, Carlson GP, et al. 1986b. The effect of an 11.5-hr/day exposure schedule on the distribution and toxicity of inhaled carbon tetrachloride in the rat. Fund Appl Toxicol 6:472-483.

8. REFERENCES

- *Paustenbach DJ, Clewell HJ, Gargas ML, et al. 1988. A physiologically based pharmacokinetic model for inhaled carbon tetrachloride. *Toxicol Appl Pharmacol* 96:191-211.
- *Pearson CR, McConnell G. 1975. Chlorinated Cl and C2 hydrocarbons in the marine environment. *Proc R Soc Lond [Biol]* 189:305-332.
- *Pellizzari ED, Sheldon LS, Bursey JT, et al. 1985a. Master scheme for the analysis of organic compounds in water, state-of-the-art review of analytical operations. Washington, DC: U.S. Environmental Protection Agency.
- Pellizzari ED, Sheldon LS, Bursey JT. 1985b. GC/MS determination of volatile halocarbons in blood and tissue. In: Fishbein L, O'Neill IK, eds. *Environmental carcinogens selected methods of analysis*. Vol. 7. International Agency for Research on Cancer. 435-444.
- Pellizzari ED, Zweidinger RA, Sheldon LS. 1985c. GC/MS determination of volatile hydrocarbons in breath samples. In: Fishbein L, O'Neill IK, eds. *Environmental carcinogens selected methods of analysis*. Vol. 7. International Agency for Research on Cancer. 413-431.
- *Peoples AJ, Pfaffenberger CD, Shafik TM, et al. 1979. Determination of volatile purgeable halogenated hydrocarbons in human adipose tissue and blood serum. *Bull Environ Contam Toxicol* 23:244-249.
- *Perez AJ, Courel M, Sobrado J, et al. 1987. Acute renal failure after topical application of carbon tetrachloride. Letter to editor. *Lancet*: February 28, 515-516.
- Permutt TJ, Moezzi M, Hudischewskyj AB, et al. 1987. Statistical analysis of concentrations of toxic air pollutants in California and Louisiana. *Proceedings of the APCA Annual Meeting* 80:87/66.1.
- *Pessayre D, Colbert B, Descatoire V, et al. 1982. Hepatotoxicity of trichloroethylene-carbon tetrachloride mixtures in rats. *Gastroenterology* 83:761-772.

8. REFERENCES

- *Peters HA, Levine RL, Matthews CG, et al. 1987. Synergistic neurotoxicity of carbon tetrachloride/carbon disulfide (80/20 fumigants) and other pesticides in grain storage workers. *Acta Pharmacol Toxicol* (Copenhagen) 59:535-546.
- Peterson RE, Fujimoto JM. 1976. Increased "bile duct-pancreatic fluid" flow in rats pretreated with carbon tetrachloride. *Toxicol Appl Pharmacol* 35:29-39.
- *Phelps BM, Hu CH. 1924. Carbon tetrachloride poisoning. Report of two fatal cases and a series of animal experiments. *J Am Med Assoc* 82:1254-1256.
- *Pilon D, Brodeur J, Plaa GL. 1986. 1,3-Butanediol-induced increases in ketone bodies and potentiation of CC_4 hepatotoxicity. *Toxicology* 40: 165-180.
- Pilon D, Brodeur J, Plaa GL. 1988. Potentiation of CCl_4 -induced liver injury by ketonic and ketogenic compounds: Role of the CC_4 dose. *Toxicol Appl Pharmacol* 94:183-190.
- Plaa GL, Larson RE. 1964. Relative nephrotoxic properties of chlorinated methane, ethane and ethylene derivatives in mice. *Toxicol Appl Pharmacol* 7: 37-44.
- *Plaa GL, Traiger GJ. 1972. Mechanism of potentiation of CCl_4 -induced hepatotoxicity. *Proceedings of the 5th International Congress of Pharmacologists* 2:100-113
- Pleil JD, Oliver KD, McClemry WA. 1988. Ambient air analyses using nonspecific flame ionization and electron capture detection compared to specific detection by mass spectroscopy. *JAPCA* 38: 1006-1010.
- *Plumb RH. 1991. The occurrence of appendix IX organic constituents in disposal site ground water. *Ground Water Monitoring Review* XI: 157-164.
- Plummer JL, de la Hall P, Isley AH, et al. 1990. Influence of enzyme induction and exposure profile on liver injury due to chlorinated hydrocarbon inhalation. *Pharmacol Toxicol* 67:329-335.

8. REFERENCES

Poli G, Cheeseman KH, Biasi F, et al. 1989. Promethazine inhibits the formation of aldehydic products of lipid peroxidation but not covalent binding resulting from the exposure of rat liver fractions to CCl₄. *Biochem J* 264:527-532.

*Pound AW, Horn L, Lawson TA. 1973. Decreased toxicity of dimethylnitrosamine in rats after treatment with carbon tetrachloride. *Pathology* 5:233-242.

*Payer JL, Floyd RA, McCay PB, et al. 1978. Spin-trapping of the trichloromethyl radical produced during enzymic NADPH oxidation in the presence of carbon tetrachloride or bromotrichloromethane. *Biochim Biophys Acta* 539:402-409.

*Prendergast JA, Jones RA, Jenkins LJ, et al. 1967. Effects on experimental animals of long-term inhalation of trichloroethylene, carbon tetrachloride, 1, 1, 1-trichloroethane, dichlorofluoromethane, and 1,1-dichloroethylene. *Toxicol Appl Pharmacol* 10:270-289.

Pronzato MA, Domenicotti C, Biasi F, et al. 1990. Inactivation of hepatocyte protein kinase C by carbon tetrachloride: involvement of drug's metabolic activation and prooxidant effect. *Biochem Biophys Res Commun* 171: 1353-1360.

Placek CJ, Gillham RW. 1992. Laboratory and field measurements of nonequilibrium transport in the Borden aquifer, Ontario, Canada. *Journal Contaminant Hydrology* 10: 119-158.

*Rams JM, Pilgrim M, Rauth S, et al. 1979. Level II materials balance:carbon tetrachloride (Draft Report). Washington, DC: U.S. Environmental Protection Agency, Office of Pesticides and Toxic Substances.

*Rae KS, Recknagel RO. 1968. Early onset of lipoperoxidation in rat liver after carbon tetrachloride administration. *Exp Mol Pathol* 9:271-278.

*Rae KS, Recknagel RO. 1969. Early incorporation of carbon-labeled carbon tetrachloride into rat liver particulate lipids and proteins. *Exp Mol Pathol* 10:219-228.

8. REFERENCES

- *Rae SB, Mehendale HM. 1989. Protective role of fructose 1,6-bisphosphate during carbon tetrachloride hepatotoxicity in rats. *Biochem J* 262:721-725.
- *Rae VC, Mehendale HM. 1991. Colchicine antimitosis abolishes CCl₄ autoprotection. *Toxicol Pathol* 19: 179-606.
- *Rae VC, Mehendale HM. 1993. Effect of antimitotic agent colchine on carbon tetrachloride toxicity. *Arch Toxicol* 67:392-400.
- Rao SB, Young RA, Mehendale HM. 1990. Perturbations in polyamines and related enzymes following chlordecone-potentiated bromotrichloromethane hepatotoxicity. *J Biochem Toxicol* 5:23-32.
- Ray P, Moore L. 1986. Carbon tetrachloride-induced release of calcium from isolated hepatocytes. *Toxicology* 41:205-212.
- *Ray SD, Mehendale HM. 1990. Potentiation of Ccl, and CHCl, hepatotoxicity and lethality by various alcohols. *Fund Appl Toxicol* 15:429-440.
- Raymer JH, Thomas KW, Cooper SD, et al. 1990. A device for sampling of human alveolar breath for the measurement of expired volatile organic compounds. *J Anal Toxicol* 14:337-344.
- *Recknagel RO . 1967. Carbon tetrachloride hepatotoxicity. *Pharmacol Rev* 19: 145-208.
- *Recknagel RO, Ghoshal AK. 1966. Lipoperoxidation as a vector in carbon tetrachloride hepatotoxicity. *Lab Invest* 15: 132-145.
- *Recknagel RO, Glende EA Jr. 1973. Carbon tetrachloride hepatotoxicity:An example of lethal cleavage. *CRC Crit Rev Toxicol* 2:263-297.
- Recknagel RO, Glende EA, Dolak JA, et al. 1989. Mechanisms of carbon tetrachloride toxicity. *Pharmacol Ther* 43: 139-154.

8. REFERENCES

- *Reinhardt CF, Azer A, Maxfield ME, et al. 1971. Cardiac arrhythmias and aerosol sniffing. Arch Environ Health 22:226-279.
- *Reinke LA, Janzen EG. 1991. Detection of spin adducts in blood after administration of carbon tetrachloride to rats. Chem Biol Interact 78: 155-165.
- *Reinke LA, Towner RA, Janzen EG. 1992. Spin trapping of free radical metabolites of carbon tetrachloride *in vitro* and *in vivo*: Effect of acute ethanol administration. Toxicol Appl Pharmacol 112:17-23.
- Reiter R, Burk RF. 1988. Formation of glutathione adducts of carbon tetrachloride metabolites in a rat liver microsomal incubation system. Biochem Pharmacol 37:327-331.
- *Reuber MD, Glover EL. 1967. Hyperplastic and early neoplastic lesions of the liver in buffalo strain rats of various ages given subcutaneous carbon tetrachloride. J Natl Cancer Inst 38:891-899.
- *Reuber MD, Glover EL. 1970. Cirrhosis and carcinoma of the liver in male rats given subcutaneous carbon tetrachloride. J Natl Cancer Inst 44:419-427.
- Reynolds ES. 1967. Liver parenchymal cell injury. IV. Pattern of incorporation of carbon and chlorine from carbon tetrachloride into chemical constituents of liver *in vivo*. J Pharmacol Exp Therap 155: 117-126.
- *Reynolds ES, Yee AG. 1968. Liver parenchymal cell injury. Part VI. Significance of early glucose-6-phosphatase suppression and transient calcium influx following poisoning. Lab Invest 19:273-281.
- *Reynolds ES, Treinen RJ, Farrish HH. 1984. Metabolism of (^{14}C) carbon tetrachloride to exhaled, excreted and bound metabolites. Biochem Pharmacol 33:3363-3374.
- *Rhoderick GC, Miller WR. 1990. Multipoint calibration of a gas chromatograph using cryogenic preconcentration of a single gas standard containing volatile organic compounds. Anal Chem 62:810-815.

8. REFERENCES

- *RIDOH. 1989. Rhode Island Department of Health. Letter with accompanying data, from Bela T. Matyas (Chief, Office of Environmental Health Risk Assessment) to James Gibson (ATSDR), dated 3 March, 1989.
- Rinkus SJ, Legator MS. 1979. Chemical characterization of 465 known or suspected carcinogens and their correlation with mutagenic activity in the *Salmonella typhimurium* system. *Cancer Res* 39:3289-3318.
- *Rocchi P, Prodi G, Grilli S, et al. 1973. *In vivo* and *in vitro* binding of carbon tetrachloride with nucleic acids and proteins in rat and mouse liver. *Int J Cancer* 11:419-425.
- Roghani M, Da Silva C, Castagna M. 1987. Tumor promoter chloroform is a potent protein kinase C activator. *Biochem Biophys Res Commun*. 142:738-744.
- *Roudabush RL, Terhaar CJ, Fassett DW, et al. 1965. Comparative acute effects of some chemicals on the skin of rabbits and guinea pigs. *Toxicol Appl Pharmacol* 7:559-565.
- *Rubin E, Lieber CS. 1968. Hepatic microsomal enzymes in man and rat: Induction and inhibition by ethanol. *Science* 162:690-691.
- *Rungby J, Ernst E. 1992. Experimentally induced lipid peroxidation after exposure to chromium, mercury or silver: interactions with carbon tetrachloride. *Pharmacol Toxicol* 70:205-207.
- *Ruprah M, Mant TGK, Flanagan RJ. 1985. Acute carbon tetrachloride poisoning in 19 patients: implications for diagnosis and treatment. *Lancet*, May 4, I: 1027-1029.
- *Rush B, Merritt MV, Kaluzny M, et al. 1986. Studies on the mechanism of the protective action of 16,16-dimethyl PGE₂ in carbon tetrachloride induced acute hepatic injury in the rat. *Prostaglandins* 32:439-455.
- *Sack TM, Steele DH, Hammerstrom K, et al. 1992. A survey of household products for volatile organic compounds. *Atmos Environ* 6: 1063-1070.

8. REFERENCES

Saez JC, Bennett VL, Spray DC. 1987. Carbon tetrachloride at hepatotoxic levels blocks reversibly gap junctions between rat hepatocytes. *Science* 236:967-969.

*Sagai M, Tappel AL. 1978. Effects of vitamin E on carbon tetrachloride-induced lipid peroxidation as demonstrated by in vivo pentane production. *Toxicol Lett* 2: 149-155.

*Sakata T, Watanabe A, Hobara N, et al. 1987. Chronic liver injury in rats by carbon tetrachloride inhalation. *Bull Environ Contam Toxicol* 38:959-961.

*Sanzgiri UY, Muralidhara S, Bruckner JV. 1992. Correlation of tissue distribution and hepatotoxicity of carbon tetrachloride (CCl₄) following ingestion. *Toxicologist* 12:423.

*Sawada S, Yamanaka T, Yamatsu K, et al. 1991. Chromosome aberrations, micronuclei and sisterchromatid exchanges (SCEs) in rat liver induced in vivo by hepatocarcinogens including heterocyclic amines. *Mutat Res* 251:59-69.

*Schwetz BA, Leong BKJ, Gehring PJ. 1974. Embryo- and fetotoxicity of inhaled carbon tetrachloride, 1,1-dichloroethane and methyl ethyl ketone in rats. *Toxicol Appl Pharmacol* 28:452-64.

*Seawright AA, McLean AEM. 1967. The effect of diet on carbon tetrachloride metabolism. *Biochem J* 105: 1055-1060.

*Seawright AA, Wilkie IW, Costigan P, et al. 1980. The effect of an equimolar mixture of carbon tetrachloride and carbon disulphide on the liver of the rat. *Biochem Pharmacol* 29:1007-1014.

Sein KT, Chu N. 1979. Liver and kidney glucose-6-phosphatase levels in carbon tetrachloride - and PDT - administered mice. *Enzyme* 24:72-74.

Selan FM, Evans MA. 1987. The role of microtubules in chlorinated alkane-induced fatty liver. *Toxicol Lett* 36: 117-127.

8. REFERENCES

Semprini L, Hopkins GD, Janssen DB, et al. 1991. *In-situ* biotransformation of carbon tetrachloride under anoxic conditions. Ada, OK: U.S. Environmental Protection Agency, Robert S. Kerr Environmental Research Laboratory, EPA/600/2-90/060.

*Sentjurs M, Mason RP. 1992. Inhibition of radical adduct reduction and reoxidation of the corresponding hydroxylamines in *in vivo* spin trapping of carbon tetrachloride-derived radicals. Free Radical Biology Medicine 13: 151-160.

*Shah H, Hartman SP, Weinhouse S. 1979. Formation of carbonyl chloride in carbon tetrachloride metabolism by rat liver *in vitro*. Cancer Res 39:3942-3947.

*Shah JJ, Heyerdahl EK. 1988. National ambient volatile organic compounds (Vocs) data base update. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Research and Development. PB88-195631.

*Shah JJ, Singh HB. 1988. Distribution of volatile organic chemicals in outdoor and indoor air. Environmental Science and Technology 22: 1381-1388.

*Shamberger RJ, Andreone TL, Willis CE. 1974. Antioxidants and cancer. IV. Initiating activity of malonaldehyde as a carcinogen, J Natl Cancer Inst 53:1771-1773.

*Shara MA, Dickson PH, Bagchi D, et al. 1992. Excretion of formaldehyde, malondialdehyde, acetaldehyde and acetone in the urine of rats in response to 2,3,7,8-tetrachlorodibenzo-*p*-dioxin, paraquat, endrin and carbon tetrachloride. J Chromatogr Biomed Appl 576:221-233.

*Shertzer HG, Sainsbury M. 1991. Chemoprotective and hepatic enzyme induction properties of indole and indenoindole antioxidants in rats. Food Chem Toxicol 29:391-400.

Shertzer HG, Niemi MP, Reitman FA, et al. 1987. Protection against carbon tetrachloride hepatotoxicity by pre-treatment with indol-3-carbinol. Exper Mol Pathol 46:180-189.

Shertzer HG, Reitman FA, Tabor MW. 1988. Influence of diet on the expression of hepatotoxicity from carbon tetrachloride in ICR mice. Drug Nutr Interact 5:275-282.

8. REFERENCES

Shibayama Y. 1988. On the pathogenesis of portal hypertension in cirrhosis of the liver. *Liver* 8:95-99.

Shimizu Y, Nagase C, Kawai K. 1973. Accumulation and toxicity of carbon tetrachloride after repeated inhalation in rats. *Ind. Health* 11:48-54.

Shindell S, Ulrich S. 1985. A cohort study of employees of a manufacturing plant using trichloroethylene. *J Occup Med* 27:577-579.

*Short CL, Kinden DA, Stith R. 1976. Fetal and neonatal development of the microsomal monooxygenase system. *Drug Metab Rev* 5:1-42.

Siegers CP, Horn W, Younes M. 1985. Effect of hypoxia on the metabolism and hepatotoxicity of carbon tetrachloride and vinylidene chloride in rats. *Acta Pharmacol Toxicol* 56: 81-86.

*Simko V, Michael S, Katz J, et al. 1992. Protective effect of oral acetylcysteine against the hepatorenal toxicity of carbon tetrachloride potentiated by ethyl alcohol. *Alcoholism: Clinical and Experimental Research* 16:795-799.

*Simmon VF, Kavhanen K, Tardiff RG. 1977. Mutagenic activity of chemicals identified in drinking water. In: Scott D, Bridges BA, Sobesi FH (eds). *Progress in genetic toxicology*. New York: Elsevier/North-Holland Biomedical Press, pp 249-258.

*Simmonds PG, Alyea FN, Cardelino CA, et al. 1983. The atmospheric lifetime experiment. 6. Results for carbon tetrachloride based on 3 years data. *J Geophys Res* 88:8427-8441.

*Simmonds PG, Cunnold DM, Alyea FN, et al. 1988. Carbon tetrachloride lifetimes and emissions determined from daily global measurements during 1978-1985. *J Atmospheric Chem* 7:35-58.

Singh HB, Fowler DP, Peyton TO. 1976. Atmospheric carbon tetrachloride: another man-made pollutant. *Science* 192: 1231-1234.

8. REFERENCES

- *Singh HB, Lillian D, Appleby A, et al. 1975. Atmospheric formation of carbon tetrachloride from tetrachloroethylene. *Environ Lett* 10:253-256.
- *Singh HB, Salas LJ, Cavanagh LA. 1977. Distribution, sources and sinks of atmospheric halogenated compounds. *Air Poll Cont* 27:332-8.
- *Singh HB, Salas LJ, Shigeishi H, et al. 1979a. Atmospheric distributions, sources and sinks of selected halocarbons, hydrocarbons, SF₆ and N₂O. Draft final report, prepared by SRI International for the U.S. Environmental Protection Agency. Office of Research and Development, Research Triangle Park, NC.
- Singh HB, Salas LJ, Smith A, et al. 1979b. Atmospheric measurements of selected toxic organic chemicals. Research Triangle Park, NC: U.S. Environmental Protection Agency, Atmospheric Chemistry and Physics Department, Environmental Sciences Research Laboratory.
- *Singh HB, Salas LJ, Smith A, et al. 1980. Measurements of some potentially hazardous organic chemicals in urban environments. *Atmos Environ* 15:601-612.
- *Singh HB, Salas L, Viezee W, et al. 1992. Measurement of volatile organic chemicals at selected sites in California. *Atmos Environ* 16:2929-2946.
- Sipes IG, El Sisi AE, Sim WW, et al. 1991. Reactive oxygen species in the progression of Ccl₄-induced liver injury. In: *Biol Reactive Intermediates IV*, Plenum Press, New York, NY 489-497.
- *Sipes IG, Krishna G, Gillette JR. 1977. Bioactivation of carbon tetrachloride, chloroform and bromotrichloromethane: Role of cytochrome P-450. *Life Sci* 20:1541-1548.
- *Sirota JH. 1949. Carbon tetrachloride poisoning in man. I. The mechanism of renal failure and recovery. *J Clin Invest* 28: 1412-1422.

8. REFERENCES

Slater RW, Ho JS. 1989. Method 502.2. Volatile organic compounds in water by purge and trap capillary column gas chromatography with photoionization and electrolytic conductivity detectors in series. Cincinnati, OH: U.S. Environmental Protection Agency, Office of Research and Development.

Slater TF, Cheeseman KH, Ingold KU. 1985. Carbon tetrachloride toxicity as a model for studying free-radical mediated liver injury. *Philos Trans R Soc Lond [Biol]* 311:633-645.

*Smetana J. 1939. Nephrosis due to carbon tetrachloride. *Arch Intern Med* 63:760-777.

*Smialowicz RJ, Simmons JE, Luebke RW, et al. 1991. Immunotoxicologic assessment of subacute exposure of rats to carbon tetrachloride with comparison to hepatotoxicity and nephrotoxicity. *Fund Appl Toxicol* 17: 186-196.

Smyth HF. 1935. Carbon tetrachloride in industry-the present status and plans for further necessary studies. *Ind Med* 4: 12-15.

*Smyth HF, Smyth HF Jr., Carpenter CP. 1936. The chronic toxicity of carbon tetrachloride; animal exposure and field studies. *Journal of Industrial Hygiene and Toxicology* 18:277-298.

Soni MG, Mehendale HM. 1991. Protection from chlordecone-amplified carbon tetrachloride toxicity by cyanidanol: biochemical and histological studies. *Toxicol Appl Pharmacol* 108:46-57.

Soni MG, Mehendale HM. 1993 Hepatic failure leads to lethality of chlordecone-amplified hepatotoxicity of carbon tetrachloride. *Fund Appl Toxicol* 21:442-450.

Sonich C, Kraemer DF, Lucas JB. 1981. An epidemiologic study of acute effects of a low level exposure to carbon tetrachloride (CCl₄). *Am J Epidemiol* 445.

*SRI. 1988. Chemical Economics Handbook. Manual of current indicators. Menlo Park, CA: SRI International.

8. REFERENCES

- *Srivastava SP, Chen NQ, Holtzman JL. 1990. The *in vitro* NADPH-dependent inhibition by CCl₄ of the ATP-dependent calcium uptake of hepatic microsomes from male rats. J Biol Chem 265:8392-8399.
- *Staples CA, Werner F, Hoogheem TJ. 1985. Assessment of priority pollutant concentrations in the United States using STORET database. Environ Toxicol Chem 4: 131-142.
- Steup DR, Wiersma D, McMillian DA, et al. 1991. Pretreatment with drinking water solutions containing trichloroethylene or chloroform enhances the hepatotoxicity of carbon tetrachloride in Fischer 344 rats. Fund Appl Toxicol 16:798-809.
- *Stevens H, Forster FM. 1953. Effect of carbon tetrachloride on the nervous system. Arch Neurol Psychiat 70: 635-649.
- *Stewart A, Witts LJ. 1944. Chronic carbon tetrachloride intoxication. Br J Ind Med 1:11-19.
- *Stewart RD, Dodd HC. 1964. Absorption of carbon tetrachloride, trichloroethylene, tetrachloroethylene, methylene chloride and 1,1,1-trichloroethane through the human skin. Am Ind Hyg Assoc J 25:439-446.
- *Stewart RD, Boettner EA, Southworth RR, et al. 1963. Acute carbon tetrachloride intoxication. J Am Med Assoc 183:94-97.
- *Stewart RD, Dodd HC, Erley DS, et al. 1965. Diagnosis of solvent poisoning. J Am Med Assoc 193:115-118.
- *Stewart, RD, Gay HH, Erley DS, et al. 1961. Human exposure to carbon tetrachloride vapor. J Occup Expos 3 : 586-590.
- Stewart PA, Lee JS, Marano DE, et al. 1991. Retrospective cohort mortality study of workers at an aircraft maintenance facility. II Exposures and their assessment. Br J Ind Med 48:531-537.

8. REFERENCES

*Straus B. 1954. Aplastic anemia following exposure to carbon tetrachloride. J Am Med Assoc 155:737-739.

*Striker GE, Smuckler EA, Kohnen PW, et al. 1968. Structural and functional changes in rat kidney during CCl₄ intoxication. Am J Pathol 53:769-789.

Suda H, Masui T, Ikawa E, et al. 1987. Compared promoting potential of D-galactosamine, carbon tetrachloride and partial hepatectomy in rapid induction of preneoplastic liver lesions in the rat. Cancer Lett 37: 163-171.

*Sutheimer C, Bost R, Sunshine I. 1982. Volatiles by headspace chromatography. In: Sunshine I, Jatlow PI, eds. Methodology for Analytical Technology. Volume II. Boca Raton, FL: CRC Press Inc., 1-9.

Summerhays J. 1991. Evaluation of risks from urban air pollutants in the Southeast Chicago area. J Air Waste Manage Assoc. 41:844-850.

Suntres ZE, Lui EM. 1990. Biochemical mechanism of metallothionein-carbon tetrachloride interaction *in vitro*. Biochem Pharmacol 39:833-840.

*Svirbely JL, Highman B, Alford WC, et al. 1947. The toxicity and narcotic action of monochloromonobromomethane with special reference to inorganic and volatile bromide in blood, urine and brain. Journal of Industrial Hygiene 29:382-389.

Symons JM, Bellar TA, Carswell JK, et al. 1975. National organics reconnaissance survey for halogenated organics. Journal of American Water Works Association 67:634-647.

Systems Applications, Inc. 1980. Human exposure to atmospheric concentrations of selected chemicals. Volume I. Carbon tetrachloride. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. PB81-193252.

*Tajima S, Nishimura N, Ito K. 1985. Suppression of delayed-type hypersensitivity mediated by macrophage-like cells in mice with experimental liver injury. Immunology 54:57-64.

8. REFERENCES

*Takizawa S, Watanabe H, Naito Y, et al. 1975. Preparative action of carbon tetrachloride in liver tumorigenesis by a single application of n-butyl nitrosourea in male ICR/JCL strain mice. *Gann* 66:603-614.

Tang N. 1987. DDT and ethanol potentiation of the hepatotoxicity of carbon tetrachloride. *Chin J Prev Med* 21: 196-198.

*Taylor HF. 1925. A case of hypersensitiveness to carbon tetrachloride. *J Am Med Assoc* 84:280.

*Taylor SL, Tappel AL. 1976. Effect of dietary antioxidants and phenobarbital pretreatment on microsomal lipid peroxidation and activation by carbon tetrachloride. *J Life Sci* 19: 1151-1160.

*Teschke R, Vierke W, Goldermann L. 1983. Carbon tetrachloride (CCl₄) levels and serum activities of liver enzymes following activities Ccl, intoxication. *Toxicol Lett* 17: 175-180.

*Tezuka M, Ishii S, Okada S. 1991a. Chromium (III) decreases carbon tetrachloride-originated trichloromethyl radical in mice. *J Inorganic Biochem* 44:261-265.

*Tezuka M, Momiyama K, Edano T, et al. 1991b. Protective effect of chromium(III) on acute lethal toxicity of carbon tetrachloride in rats and mice. *J Inorganic Biochem* 42: 1-8.

*Thakore KN, Mehendale HM. 1991. Role of hepatocellular regeneration in (CCl₄) autoprotection. *Toxicol Pathol* 19:47-58.

Thomas CE, Aust SD. 1986. Free radicals and environmental toxins. *Ann Emerg Med* 15:1075-1083.

Thomas KW, Pellizzari ED, Cooper SD. 1991. A canister-based method for collection and GUMS analysis of volatile organic compounds in human breath. *J Anal Toxicol* 15:54-59.

Tortoriello PJ, Riebow JF, Advani S, et al. 1991. The anomaly of pyridine nucleotide synergism in carbon tetrachloride metabolism. *Free Radic Biol Med* 10:387-396.

8. REFERENCES

- *Towner RA, Reinke LA, Janzen EG, et al. 1991. Enhancement of carbon tetrachloride-induced liver injury by a single dose of ethanol: proton magnetic resonance imaging (MRI) studies *in vivo*. *Acta Biochem Biophys* 1096:222-230.
- *Tracey, JP, Sherlock P. 1968. Hepatoma following carbon tetrachloride poisoning. *New York Journal of Medicine* 68:2202-2204.
- *Traiger GJ, Bruckner JV. 1976. The participation of 2-butanone in 2-butanol-induced potentiation of carbon tetrachloride hepatotoxicity. *J Pharmacol Exp Therap* 196:493-500.
- *Traiger GJ, Plaa GL. 1971. Differences in the potentiation of carbon tetrachloride in rats by ethanol and isopropanol pretreatment. *Toxicol Appl Pharmacol* 20: 105-112.
- Traiger GJ, Bruckner JV, Jiang WD, et al. 1989. Effect of 2-butanol and 2-butanone on rat hepatic ultrastructure and drug metabolizing enzyme activity. *J Toxicol Environ Health* 28:235-248.
- *TRI90. 1992. Toxic Chemical Release Inventory. National Library of Medicine, National Toxicology Information Program, Bethesda, MD.
- Triger DR, Wright R. 1973. Studies on hepatic uptake of antigen. II. The effect of hepatotoxins on the immune response. *Immunology* 25:951-956.
- *Tsuda H, Masui T, Ikawa E, et al. 1987. Compared promoting potential of d-galactosamine, carbon tetrachloride and partial hepatectomy in rapid induction of preneoplastic liver lesions in the rat. *Cancer Lett* 37:163-171.
- *Tsuruta H. 1975. Percutaneous absorption of organic solvents. Comparative study of the *in vivo* percutaneous absorption of chlorinated solvents in mice. *Industrial Health* 13:227-236.
- *Uehleke H, Hellmer KH, Tabarelli S. 1973. Binding of ¹⁴C-carbon tetrachloride to microsomal proteins *in vitro* and formation of CHC13 by reduced liver microsomes. *Xenobiotica* 3: 1-11.

8. REFERENCES

*Uehleke H, Werner T, Greim H, et al. 1977. Metabolic activation of haloalkanes and tests in vitro for mutagenicity. *Xenobiotica* 7:393-400.

*Uemitsu N. 1986. Inhalation pharmacokinetics of carbon tetrachloride in rats based on arterial blood: inhaled air concentration ratios. *Toxicol Appl Pharmacol* 83:20-29.

Uemitsu N, Nishimura C, Nakayoshi H. 1986. Evaluation of liver weight changes following repeated administration of carbon tetrachloride in rats and body-liver weight relationship. *Toxicology* 40: 181-190.

Umiker W, Pearce J. 1953. Nature and genesis of pulmonary alterations in carbon tetrachloride poisoning. *Arch Pathol* 55:203-217.

*USITC . 1986. Synthetic organic chemicals. United States production and sales. 1986. Washington, DC: U.S. International Trade Commission, publication 2009, 212.

*USITC. 1991. Synthetic organic chemicals. United States production and sales. 1990. Washington, DC: U.S. International Trade Commission, publication 2470, 15-8, 15-30.

Valdivia E, Sonnad J. 1966. Fatty change of the granular pneumocyte in carbon tetrachloride intoxication. *Arch Pathol* 8 1:514-5 19.

Vannelli T, Logan M, Arciero DM, et al. 1990. Degradation of halogenated aliphatic compounds by the ammonia-oxidizing bacterium *nitrosomonas europaea*. *Appl Environ Microbial* 56: 1169- 117 1.

*Vazquez C, Bujan J, Vallejo D. 1990. Blood coagulation variations induced by carbon tetrachloride inhalation in wistar rats. *Toxicol Appl Pharmacol* 103:206-213.

Veng-Pedersen P, Paustenback DJ, Carlson GP, et al. 1987. A linear systems approach to analyzing the pharmacokinetics of carbon tetrachloride in the rat following repeated exposures of 8 and 11.5 h/day. *Arch Toxicol* 60:355-364.

8. REFERENCES

*Verschuere K. 1993. Handbook of environmental data on organic chemicals. New York: Van Nostrand Reinhold Company.

Villarruel MC, Fernandez G, Aguilar EG, et al. 1987. Early biochemical alterations in liver mitochondria from carbon tetrachloride poisoned rats. *J Appl Toxicol* 7: 173-177.

*Vittozzi L, Nastainczyk W. 1987. Binding of reactive metabolites of CCl₄ to specific microsomal proteins. *Biochem Pharmacol* 36: 1401-1406.

*von Oettingen WF. 1964. The halogenated hydrocarbons of industrial and toxicological importance. In: Browning E, ed. *Elsevier Monographs on Toxic Agents*. New York, NY: Elsevier Publishing Co.

*von Oettingen WF, Powell CC, Sharpless NE, et al. 1949. Relation between the toxic action of chlorinated methanes and their chemical and physicochemical properties. *National Inst Health Bull* no. 191.

von Oettingen WF, Powell CC, Sharpless NE, et al. 1950. Comparative studies of the toxicity and pharmacodynamic action of chlorinated methanes with special reference to their physical and chemical characteristics. *Arch Int Pharmacodyn* 81: 17-34.

*Wahlberg JE, Boman A. 1979. Comparative percutaneous toxicity of ten industrial solvents in the guinea pig. *Stand J Work Environ Health* 5:345-351.

Walker BL, Cooper CD. 1992. Air pollution emission factors for medical waste incinerators. *J Air Waste Manage Assoc* 42:784-791.

*Wallace LA. 1986. Personal exposures, indoor and outdoor air concentrations and exhaled breath concentrations of selected volatile organic compounds measured for 600 residents of New Jersey, North Dakota, North Carolina and California. *Toxicol Environ Chem* 12:215-36.

Wallace LA, Pellizzari ED, Hartwell TD, et al. 1989. The influence of personal activities on exposure to volatile organic compounds. *Environ Res* 50:37-55.

8. REFERENCES

- *Wallace LC, Pellizzari D, Leaderer B, et al. 1987. Emissions of volatile organic compounds from building materials and consumer products. *Atmosph Environ* 21: 385-393.
- *Wailer RL Glende EA Jr., Recknagel RO. 1983. Carbon tetrachloride and bromotrichloromethane 9 toxicity. *Biochem Pharmacol* 32: 1613-1617.
- *Walters SM. 1986. Cleanup of samples. In: Zweig G, Shema J. eds. *Analytical Methods for Pesticides and Plant Growth Regulators*. New York, NY: Academic Press, 67-110.
- *Walton BT, Hendricks MS, Anderson TA, et al. 1992. Soil sorption of volatile and semivolatile organic compounds in a mixture. *J Environ Qua1* 21:552-558.
- Washall JW, Wampler TP. 1988. Purge and trap analysis of aqueous samples with cryofocusing. *American Laboratory*, July:70-74.
- *Watanabe A, Shiota T, Takei N, et al. 1986. Blood to brain transfer of carbon tetrachloride and lipoperoxidation in rat brain. *Res Comm Chem Path Pharmacol* 51: 137-140.
- *Waterfield CJ, Turton JA, Scales MD, et al. 1991. Taurine, a possible urinary marker of liver damage: a study of taurine excretion in carbon tetrachloride-treated rats. *Arch Toxicol* 65:548-555.
- *Weast RC, ed. 1985. *CRC handbook of chemistry and physics*. 66th ed. Boca Raton, FL: CRC Press.
- *Weber FL, Macechko PT, Kelson SR, et al. 1992. Increased muscle protein catabolism caused by carbon tetrachloride hepatic injury in rats. *Gastroenterology* 102: 1700-1706.
- *Westrick JJ, Mello JW, Thomas RF. 1984. The groundwater supply survey. *Journal of American Water Works Association* 76:52-59.
- *WHO. 1984. *Guidelines for drinking-water quality*. Volume 1. Recommendations. Geneva: World Health Organization.

8. REFERENCES

*Wilson JG. 1954. Influence of the offspring of altered physiologic states during pregnancy in the rat. *Ann NY Acad Sci.* 57:517-525.

*Wirtschafter ZT. 1933. Toxic amblyopia and accompanying physiological disturbances in carbon tetrachloride intoxication. *Am J Public Health* 22: 1035-1038.

Wirtschafter ZT, DeMeritt MG. 1959. Reticuloendothelial response to carbon tetrachloride. *Arch Pathol* 67: 146-158.

*Withey JR, Collins BT, Collins PG. 1983. Effects of vehicle on the pharmacokinetics and uptake of four halogenated hydrocarbons from the gastrointestinal tract of rat. *J Appl Toxicol* 3:249-253.

*Wolf CR, Mansuy D, Nastainczyk W, et al. 1977. The reduction of polyhalogenated methanes by liver microsomal cytochrome P-450. *Mol Pharmacol* 13 :698-705.

Wolfgang GH, Donarski WJ, Petry TW. 1990. Effects of novel antioxidants on carbon tetrachloride-induced lipid peroxidation and toxicity in precision-cut rat liver slices. *Toxicol Appl Pharmacol* 106:63-70.

*Wang LCK, DiStefano V. 1966. Rapid accumulation of renal fat in cats after single inhalations of carbon tetrachloride. *Toxicol Appl Pharmacol* 9:485-494.

Wright PB, Moore L. 1991. Potentiation of the toxicity of model hepatotoxicants by acetaminophen. *Toxicol Appl Pharmacol* 109: 327-335.

*Yamada M, Ishiwada A, Hobo T, et al. 1982. Novel chemiluminescence detector for determination of volatile polyhalogenated hydrocarbons by gas chromatography. *J Chromatogr* 238: 347.

*Yamamoto HA. 1990a. Brain phenylalanine and tyrosine levels and hepatic encephalopathy induced by CCl₄ in rats. *Toxicology* 61:241-247.

*Yamamoto HA. 1990b. Relation of Ca²⁺ accumulation and lipid peroxidation with CCl₄-induced toxicity in the rat liver. *Pharmacol Toxicol* 66:213-216.

8. REFERENCES

Yamamoto H, Sugihara N. 1987. Blood ammonia levels and hepatic encephalopathy induced by CCl₄, in rats. *Toxicol Appl Pharmacol* 91:461-468.

*Yamashita S, Ozawa R, Yamaguchi K, et al. 1992. Analysis of volatile organic compounds in air by gas chromatography with thermal desorption cold-trap injection and atomic emission and mass selective detection. *Journal of High Resolution Chromatography* 15:549-551.

Yano T, Shibagaki T, Kitamura H, et al. 1988. The mechanism of carbon tetrachloride induced pulmonary Clara cell damage: biochemical and morphologic studies. *Res Commun Chem Pathol Pharmacol* 62:483-493.

*Young RA, Mehendale HM. 1989. Carbon tetrachloride metabolism in partially hepatectomized and sham-operated rats pre-exposed to chlordane (Kepone). *J Biochem Toxicol* 4:211-219.

Zalatnai A, Sarosi I, Rot A, et al. 1991. Inhibitory and promoting effects of carbon tetrachloride induced liver cirrhosis on the diethylnitrosamine hepatocarcinogenesis in rats. *Cancer Lett* 57:67-73.

*Zlatkis A, Kim K. 1976. Column elution and concentration of volatile compounds in biological fluids. *J Chromatogr* 126:475-485.